



TRADE LIBERALIZATION AND FISCAL REFORM:

EVIDENCE FROM TWO CASE STUDIES -- MOROCCO AND JAMAICA -- AND A GENERAL CROSS-COUNTRY ECONOMETRIC ANALYSIS

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by

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Abstract

This study seeks to answer a number of basic questions about the relationship between tariff liberalization and the domestic tax responses. First among these is the revenue impact of tariff liberalization. Second is the question about the domestic fiscal response: Will a country which undertakes a reduction in duties raise alternative trade taxes, widen the tax base, or find alternative domestic taxes to substitute for tariffs? In order to answer these questions, this study evaluates the experiences of Morocco and Jamaica during their respective periods of tariff liberalizations. It also presents a cross-country econometric analysis of the impact of reduced revenues which are associated with tariff liberalization.

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EXECUTIVE SUMMARY

Trade liberalization is a pressing yet sensitive policy issue in many developing countries. The opposition can be intense, reflecting in part the power of strong vested protectionist interests. An even more fundamental reason for opposition is the fear of revenue losses from the reduction of tariffs and other trade taxes, which continue to be a major source of revenue for budget-constrained governments. While trade taxes in OECD countries represent 0.5 percent of total tax revenue, in low income countries they account for an astonishing 26 percent, and in middle and high-middle income countries an average of 16 percent.

With such a heavy dependence on trade taxes for revenue, a key concern for any country contemplating liberalization of its tariff structure—whether its purpose is to comply with international trade regimes such as the World Trade Organization (WTO) or to meet the terms of a bilateral or regional trade pact—must be with how it is to recover, from other sources, the revenue loss that must ultimately be entailed.

This study seeks to answer a number of basic questions about the relationship between tariff liberalization and the domestic tax responses. First among these is the revenue impact of tariff liberalization. Second is the question about the domestic fiscal response: Will a country which undertakes a reduction in duties raise alternative trade taxes, widen the tax base, or find alternative domestic taxes to substitute for tariffs? In order to answer these questions, this study evaluates the experiences of Morocco and Jamaica during their respective periods of tariff liberalizations. It also presents a cross-country econometric analysis of the impact of reduced revenues which are associated with tariff liberalization.

Conventional models of tariff liberalization typically assume that a fall in tariff revenue, post liberalization, is offset by a fall in the lump sum transfer from the government to the private sector. This assumption is based on years of practical trade policy experience in OECD countries where the ‘passive’ redistribution assumption held in a period of rapid economic growth. This ‘passive’ transfer assumption is not an appropriate simplification in the present developing country environment where there are open questions about the funding of public debt along with resistance to domestic tax increases or reductions in public expenditures. Remarkably little has been written on coordinating tax-tariff reforms.

The standard case about transferring the tax burden from imports to domestic goods is based on this passive budget constraint. In a recent paper, Anderson (1996) has shown that cuts in trade taxes may well be inefficient when there is an active government budget constraint. From this perspective, in the context of developing countries, trade liberalization may well be supported from the efficiency perspective rather than the tax neutrality.

The theoretical analysis presented by Anderson points out that welfare falls with a cut in tariffs combined with a revenue neutral rise in consumption taxes. To guarantee a welfare

improvement would require very stringent and implausible assumptions. This stands in contradiction to the standard theory of protection which assumes that a benevolent welfare maximizing government seeks a welfare improving tariff reform subject to unspecified constraints which make impossible the move all the way to free trade.

In the theoretical public finance literature it is well established that an optimal policy for a small open economy is to reduce tariffs to zero and raise consumption taxes (see Dixit, 1985; and Diamond and Mirrlees, 1971), thus maintaining production efficiency. This literature assumes that the budget constraint is not 'passive' and that the provision of public goods and services by the government sector is paid for by distortionary taxation. However, the Ramsey inverse elasticity literature (see Ramsey, 1927) suggests that the optimal tax principle is to tax every taxable good in inverse proportion to its elasticity of demand. This would clearly point to a positive tax on international trade. In contrast, the Diamond and Mirrlees optimal commodity tax principle is to preserve productive efficiency. Consequently, a small open economy should not discriminate between foreign and domestic supply of identical products. The trade reform literature extending the Ramsey principle in order to create a 'wider base' includes a discussion of possible trade taxes in cases of differentiated trade. An extension of the Diamond and Mirrlees principle—that is, to reduce duties and raise consumption taxes—applies only under very restrictive conditions which restrict substitution.

This theoretical literature suggests that there exists some way of replacing tariffs with domestic consumption taxes in such a way as to raise welfare while maintaining revenue. It would be helpful to go beyond this theoretical construct in order to provide policymakers with some specific guidelines as to precisely what such a reform might look like. There are many informal discussions of coordinated tariff-tax reforms provided by Mitra (1992), Anderson, and others but very few simple strategies for reform emerge. The best one can get from this literature is that an infinitesimal reduction in tariffs combined with equal but opposite changes in consumption taxes, so leaving consumer prices unchanged, increases both welfare and public revenue.

Our empirical results point out that as tariffs are reduced, and demand for government expenditure either remains constant or expands, the affected local government responds by raising either domestic taxes or a substitute border tax. In the case of Morocco, as tariffs were reduced and the value-added tax (VAT) was increased the government also introduced *parafiscal* import taxes which are primarily applied to imports. In the case of Jamaica, when tariff liberalization reduced government revenues, the government in addition to raising domestic taxes also introduced special duties which were applied to agriculture.

An econometric evaluation of alternative tax responses to the loss in revenue from tariff liberalization, conducted on 38 developing countries for the period 1980–2002, confirmed the results found in the two case studies. As tariffs were reduced, revenue from the VAT increased along with revenue from employee taxes. More interesting was the decline over time in the reduction in tariff revenue. That is, as revenue requirements increased the speed of lowering tariffs was reduced.

Overall, the results of the study confirm the theoretical arguments made by Anderson, i.e., that with an active government revenue constraint a country reducing its tariffs will suffer a loss in welfare. In such cases, the affected government will look to increase tax revenue from domestic taxes, but if that fails will introduce surrogate border taxes such as in the case of Morocco.

I. INTRODUCTION

The conventional wisdom supported by mainstream economists is that in the case of small economies, free trade allows an economy to achieve the highest possible welfare gains. Despite this proposition, non-economic incentives often drive governments to adopt policies that create tariff and non-tariff measures. The empirical literature has time and again demonstrated that these measures create distortions in production, consumption and factor markets. Yet removal of these border measures can be shown, under certain circumstances, to lead to a reduction in tax revenue and decline in public sector expenditures. A substitution of alternative tax measures¹ to make up for the shortfall may either cause a further expansion of grey market activity or outright tax avoidance. Avoidance frequently manifests itself through a greater reliance on international trade.

Melvin² showed that one of the reasons for international trade is price differentials spawned by differences in tax structures. His argument leads to the well-known result that taxes on the non-traded goods sectors transfer economic resources to traded goods sectors and thus facilitate international trade. Taxes on factors of production that are passed backwards to owners of immobile factors have limited trade impacts, but enter as elements in their respective cost functions, resulting in second-round trade effects through production-related cost effects.³

Despite the merits of these arguments and the general consensus on the virtues of free trade, in reality, there are virtually no countries, “small” or “large”, that practice completely *free* trade. The literature suggests three broad justifications for this outcome. First, in certain cases, such as with optimal tariff arguments, infant industry protection, strategic trade policy, and endogenous growth theory, one can show that restricting trade can be an optimal policy. Second, as put forward by the public choice and political economy literature, governments may be under pressure from powerful interest groups to protect certain industries. Third, in the case of small economies that have a small tax base or a corrupt tax administration, the elimination of taxes collected at the border would lead to a major reduction in government revenues, and thus these governments may be reluctant to implement any such liberalizing measures.

While it is true that trade taxes have considerably higher distortionary costs per unit of tax revenue raised,⁴ it may also be true that in countries with an active government

¹ These other taxes would apply equally to imports and domestic goods, in conformity with Article III, but would have a higher incidence when imposed on imports.

² See, Melvin, (1970, 1975).

³ See Whalley (1980) for the case where factors are mobile.

⁴ See Clarete and Whalley (1987).

budget constraint, cuts in trade taxes may be less efficient than presupposed.⁵ According to this literature, governments with limited administrative capacity and a narrow tax base tend to collect revenues from sectors that are easy to tax, e.g. imports, with a minimum amount of leakage. From much of the literature on developing countries, we know that administering income taxes and value-added taxes requires more advanced techniques than collecting import tariffs. These studies have shown that tariffs can improve welfare when there are distributional concerns and the government is not free to tax all goods at different rates. With the added concerns of corruption and evasion, which make tax collection difficult and raise enforcement costs, border taxes provide a simpler alternative: they are easy to monitor and easy to collect, and corruption is easy to stop.

This study approaches the problem of tariff liberalization and domestic tax responses by using both the trade and public finance literature. The primary focus of the study is to determine the revenue impact of tariff liberalization. The second issue of interest is the domestic fiscal response. Will a country which undertakes a reduction in duties raise alternative trade taxes, widen the tax base, or find alternative domestic taxes to substitute for tariffs? In theory one would expect that a country undertaking tariff liberalization would seek to expand its domestic tax base as well as tax rates. Recognizing that raising domestic taxes is limited by efficiency considerations, to what extent does this theoretical result hold across developing countries?

In order to answer these questions, this study evaluates the experiences of Morocco and Jamaica during their respective periods of tariff liberalizations. It also presents a cross country econometric analysis of the impact of reduced revenues which are associated with tariff liberalization.

The organization of the study is as follows. Section II presents a discussion of the links between taxes and international trade. A theoretical discussion of the complex relationship between tariff liberalization and fiscal reform under differing assumptions of positive collection costs, compliance problems and budget constraint in developing countries is presented in Section III. The empirical analysis is presented in Section IV. The case study on Morocco is presented in Section V and that of Jamaica is presented in Section VI. The conclusion of the study and suggested future avenues of research are presented in Section VII. Data sources are presented in an Appendix.

⁵ See Anderson (1996).

II. THE LINK BETWEEN TAXES AND INTERNATIONAL TRADE

The linkages between taxes and trade were pointed out in some very early papers by Melvin.⁶ One can see this in a very stylized two good economy, where both T (textiles) and M (machinery) are produced and consumed at a general equilibrium (point E). No trade occurs at this equilibrium point. Assume that this economy imposes a consumption tax on T: the new equilibrium would shift to point F, where internal consumption prices differ from world prices even though trade takes place along the world price line (P_W). International trade is induced from the price differentials due to the presence of domestic taxes.

Historically, because of the ease of collection and availability of side payments, international customs taxes have been an important source of revenue in all economies. In the post-Uruguay Round period, tariffs have greatly declined as a revenue source in developed countries, and as shown in Table 1, represent less than half of a percent of total tax revenue. In contrast, low-income developing countries with only rudimentary sales and income tax bases still rely heavily on tariffs. In Morocco and Jamaica, the two case studies presented here, tariffs were initially substituted by domestic taxes but as each of the countries began to experience revenue shortfalls, alternative taxes predominantly targeting imports were introduced. Furthermore, in the case of Morocco a decision was made to entice foreign direct investment as a source of additional tax revenue.

Table 1
TAX REVENUE BY TYPE OF TAX AND
BY COUNTRY GROUP
(percent of total taxes)

	Income Tax	General VAT & sales	Excise	Import Duties	Export Duties	Tax Revenue as % of GDP
Low Income	28.9	17.0	13.2	25.9	3.0	14.9
Low middle income	24.1	21.3	13.4	15.5	0.2	19.9
High middle income	24.2	23.6	10.0	16.1	0.2	22.3
OECD	32.2	19.0	10.4	0.5	..	33.1
All countries	27.3	20.2	11.7	14.5	0.9	22.5

Source: Government Finance Statistics 1997 (1995 for Low Income Countries), presented in Kubota, p4, Table 1.

In general, most countries over time move away from tariffs and other trade taxes toward a greater reliance on non-trade taxes. The most common examples include, income, corporate, excise, broadly-based sales (e.g., VAT), social security, property and

⁶ See Melvin (1970, 1975).

resource taxes. These instruments are not necessarily international trade-neutral because of their direct effects on relative production costs and consumption. Key to their impact on international trade is the extent to which these local taxes are passed forward in the form of higher prices for inputs and final products, or the extent to which taxes are passed backwards and wholly (or partially) borne by fixed factors or sector-specific inputs. A further set of trade effects reflect the extent to which non-traded goods sectors are relatively lightly taxed, and hence economic activities involving traded goods are discouraged by the tax system.

The primary mechanism through which domestic non-trade-related taxes can have impacts on trade is through shifting forward to consumers in the form of higher prices. The necessary and sufficient conditions are whether taxes on the use of capital as an input enter as higher capital costs and show up as higher production costs, and whether taxes on intermediate inputs, such as taxes on gasoline, have similar effects. To the extent that such effects, driven by domestic taxes, are commodity- or sector-specific, they have an impact on relative costs and consequently affect trade through their impacts on consumption and production.

From the tax literature on incidence we know that⁷ the corporate tax is often treated as a tax on the return to capital investments made by local firms. To the extent that the tax increases the cost of capital as an input, it is passed forward in the form of higher input costs. If it is not passed forward, then the tax falls on owners of capital as a lowered return to investment. In the 1950s, the corporate tax in the US was thought to be fully shifted forward to consumers in the form of higher product prices for consumers.⁸ A decade later, based on a general equilibrium model of the US economy in which the corporate tax was treated as a tax on the use of capital inputs in only one sector, it was shown that capital bears the burden of the corporate tax, implying no forward shifting and hence no trade effects from the tax.⁹

In contrast, excise taxes are typically treated as commodity-specific taxes that are passed on in the form of higher prices to buyers of taxed commodities. In the case of petrochemicals, one of the more common commodity taxes, trade effects occur because fuel is an input into production and enters into costs. If exports are intensive in their use of fuels, such taxes will reduce their production. If imports are intensive in their use of fuels, such taxes will encourage imports which displace domestic production. The precise degree of pass-through depends on the elasticities of demand and supply functions for taxed commodities.

Payroll taxes are another element of tax structure which can influence trade. They vary in importance from country to country, but to the degree that such taxes are viewed

⁷ See Whalley (1984) and Fullerton and Metcalf (2002).

⁸ This was based on the work of Kryzaniak and Musgrave (1963).

⁹ See Harberger (1962).

as pure taxes and not as benefit-related charges for which benefits and taxes roughly offset, these are usually treated in the literature as taxes on labor. The extent to which they affect costs depends once again on demand and supply elasticities in the labor market. It is common in the literature to assume a significant pass-through for such taxes, and hence if exports of labor-intensive would diminish, while imports of labor-intensive products would increase.

To the extent that the returns to non-renewable resources, such as metallic ores or oil and gas, reflect a pure rent then any taxes on them are borne solely by the owners of such resources. In reality, however, any such taxes will also affect new exploration activity and hence impact supply.

In many countries, housing comprises a large portion of the economy-wide capital stock. Housing is relatively lightly taxed compared to most other assets. The imputed income stream from housing accrues to owner-occupiers who effectively rent from themselves and this goes untaxed, as does the capital gain accruing to homeowners. In some economies, interest paid on mortgages is also deductible under the income tax, adding to the lighter tax treatment of housing. These elements combine to direct more resources into housing than would otherwise be the case, which reduces the volume of trade.

Under the VAT it is common in most countries to exempt key service activities such as banking, once again adding to the lighter tax treatment of these sectors in general. To the extent that economic activity is stimulated and activity in tradable sectors is retarded there will also tend to be a negative impact on trade volumes from this element of the tax structure.

A predominant issue in tax design in developing countries over recent decades has been the substitution of a trade-based tax structure towards more broadly-based consumption taxes, such as a VAT. The traditional arguments in favor of using a VAT rather than trade taxes run as follows. The first is that because the tax base is consumption rather than imports it is considerably larger, and hence to raise a given amount of tax revenue a lower tax rate can be used. A second argument is that tariffs distort both consumption and production, in contrast to the single distortion of consumption associated with a broadly-based consumption tax. The third argument is that the marginal welfare costs of raising additional revenues from a tariff tend to be high compared to a yield-equivalent consumption tax or VAT. This is because two distorting margins are involved rather than one, and the tax base of trade taxes is narrow compared to a consumption tax.¹⁰

These reasons are the most commonly cited for the general presumption that in tax design, broadly-based consumption taxes dominate narrower-based trade taxes. Other factors added to the debate include evasion of tariffs through smuggling and false

¹⁰ See Clarete and Whalley (1987) who find in the case of the Philippines, the ratio of marginal welfare costs of tariffs to taxes was 9 to 1.

declaration, and other unintended effects of tariffs, such as resource misallocation noted earlier.¹¹

Most of this literature generally assumes that the VAT at issue will be broadly based and non-distortionary, which in practice is rarely the case. Generally, financial services and housing are exempt or lightly treated under the VAT, giving lighter tax treatment to the non-traded goods sector and hence a retarding effect on trade. In addition, the agricultural sector is usually lightly taxed adding both to the distortionary effects of the tax and the relatively small tax base. Thus a comparison between a tariff and a broadly-based VAT is not a fair comparison in practice as a basis for guiding policy, although the general presumption of moving away from trade to consumption or production taxes remains the accepted paradigm. Even if a VAT has exemptions and multiple rates, generally it is believed that in terms of welfare costs per dollar of revenue raised it will dominate the use of a tariff.

¹¹ See the second-best literature of Bhagwati et. al.

III. TARIFF LIBERALIZATION AND FISCAL ADJUSTMENT

Conventional models of tariff liberalization typically assume that a fall in tariff revenue, post liberalization, is offset by a fall in the lump sum transfer from the government to the private sector. This assumption is based on years of practical trade policy experience in OECD countries where the ‘passive’ redistribution assumption held in a period of rapid economic growth. This ‘passive’ transfer assumption is not an appropriate simplification in the present developing country environment where there are open questions about the funding of public debt along with resistance to domestic tax increases or reductions in public expenditures. Yet, remarkably little has been written on coordinating tax and tariff reforms.

The discussion which follows attempts to present the various theoretical strands of the debate in order to pinpoint the need for a more general and more practicable strategy for reaping the efficiency gains of tariff reform without jeopardizing public finances. We also suggest that the best empirical approach to handle this problem is within the computable general equilibrium (CGE) framework.

III.1 Tariff Reductions under the Assumption of a Passive Budget Constraint

The standard case about transferring the tax burden in an economy from imports to domestic goods is based on the assumption of a passive budget constraint. In a recent paper, Anderson (1996) illustrated that a reduction in trade taxes may prove inefficient when there is an active government budget constraint. From this perspective, at least in the context of developing countries, trade liberalization may well be supported from the perspective of economic efficiency rather than from that of tax neutrality.

The analysis presented in this section is based in large part on Anderson,¹² and attempts to highlight the sufficient conditions under which fiscal adjustments can improve welfare in an economy despite tariff liberalization.

The theoretical analysis in Anderson suggests that welfare falls when tariff cuts combine with a revenue-neutral rise in consumption taxes. To guarantee a welfare improvement would require very stringent and implausible assumptions. This stands in contradiction to the standard theory of protection, which assumes that a benevolent welfare-maximizing government seeks a welfare-improving tariff reform subject to unspecified constraints which make impossible the move all the way to free trade.¹³

Public finance theory, in contrast, assumes that the government’s budget constraint is not ‘passive’ and that the provision of public goods and services by the government sector is paid for by distortionary taxation. Dixit (1985) and Diamond and Mirrlees (1971), among others, establish that an optimal policy for a small open economy is to reduce

¹² See Anderson (1996).

¹³ See Bertrand and Vanek, (1972), Bruno, (1972), Lloyd, (1974), and Hatta, (1977).

tariffs to zero and raise consumption taxes, thus maintaining production efficiency. Consequently, a small open economy should not discriminate between foreign and domestic supply of identical products. However, the Ramsey inverse elasticity literature (see Ramsey, 1927) suggests that the optimal tax principle is to tax every taxable good in inverse proportion to its elasticity of demand. This would clearly point to a positive tax on international trade. The trade reform literature extending the Ramsey principle in order to create a ‘wider base’ includes a discussion of possible trade taxes in cases of differentiated trade. An extension of the Diamond and Mirrlees optimal commodity tax principle—that is, to reduce duties and raise consumption taxes—applies only under very restrictive conditions which limit substitution.

Starting from this theoretical literature, we can develop a practical framework to provide policymakers with some specific guidelines as to precisely how to replace tariffs with domestic consumption taxes in such a way that actually raises welfare while maintaining revenue.

To help us understand and analyze a trade or tax reform we start with a single measure—the Marginal Cost of Funds (MCF). MCF, simply put, is the public finance counterpart to deadweight loss calculations. The opposite of the MCF of a tax (or tariff) is the marginal *benefit* of the funds raised by the tax. The marginal benefit is equal either to the marginal value of the goods and services financed by the tax or to the reduction in the marginal cost of the tax as a result of a rise in tax revenue. MCF for any tax is defined as the ratio of the marginal compensation required to maintain real income as the tax rises to the compensated marginal tax revenue raised by the tax increase. In other words, it gives, at the margin, the compensation required per dollar of revenue raised, across instruments.¹⁴

Consider an imported good with quantity denoted M selling at price p_d wedged above its international price p_w by a tariff. A small change in the tariff results in the following key elements:

Mdp_d the external compensating transfer at the margin,

and

$[M + (p_d - p_w)M]dp_w$ the revenue change at the margin.

The ratio of these defines the Marginal Cost of Funds:

$$MCF^{p_d} = \frac{Mdp_d}{[M + (p_d - p_w)M]dp_w} = \frac{M}{MR}$$

that is, the compensation cost per dollar of revenue raised at the margin (MR) via dp_d .

¹⁴ See Anderson and Martin (1995).

The familiar tool of trade economists evaluating tariff liberalization and public finance economists evaluating tax incidence was and still remains the concept of marginal deadweight loss, equal to $(p_d - p_w)Mdp_d$. The critical assumption that allows the marginal deadweight loss to apply in this case is when there exists a lump-sum redistribution of the revenue.

Consider Figure 2 where a comparison is made between the MCF index and deadweight loss.¹⁵ MR is the marginal revenue schedule based on the import demand schedule. The tax is set at level t . The areas of rectangles a and b , and of triangle d are the basic building blocks for the standard welfare analysis. $a+b$ is the revenue raised, while $a+b+d$ is the consumer surplus lost. The net welfare effect of a tariff t with revenue redistributed in a lump sum is the deadweight loss of triangle d . The MCF, or the compensation cost per dollar raised, is equal to $(a+b+d)/(a+b)$. In this form, deadweight loss d appears to be the central concept. In contrast,

$$MCF = \frac{tB}{tA} = \frac{(a+b)}{a} \neq \frac{(a+b+d)}{(a+b)}$$

Only in the case where there is a lump sum redistribution is the marginal deadweight loss area (shown as the wedge in area d) relevant to our case.

Adding demand elasticities and tariffs to the basic MCF index produces:

$$MCF = \frac{1}{1 + (p_d - p_w) \frac{M_{p_d}}{M}} = \frac{1}{1 - \frac{t}{1+t} \eta}$$

where η is the demand elasticity and t is the ad-valorem tax rate. The deadweight loss formula thus becomes:

$$-MDWL = -(p_d - p_w)M = \frac{t}{1+t} \eta \varphi$$

For the constant elasticity demand (CES) curve, $\varphi = \gamma(1+t)^{-\eta}$. MCF can be shown to be everywhere increasing in t and in η , while MDWL is first increasing and then decreasing in both t and η . As Anderson point out, the fact that these two measures are different leads to a preference for the general MCF measure over the special case found in the deadweight loss calculations.¹⁶

¹⁵ This is based on Anderson (1996).

¹⁶ See Anderson (1996, pp. 10 -13) for a formal derivation of the model.

Anderson points out that tariff reductions financed by cuts in government service are welfare-reducing, in a normal competitive economy, with under-provision of public goods relative to their costs. The undersupply of public goods is based on the premise that the shadow price of public production exceeds the product of the direct marginal outlay needed times the marginal cost of funds raised through distortionary trade taxation. Likewise, he shows that theoretically a replacement of trade taxes with consumption taxes is welfare-improving as long as trade and consumption are not initially subsidized. Finally, starting with a zero consumption tax, a rise in consumption taxes combined with a reduction in trade taxes is welfare-improving provided that traded goods are not perfectly inelastically demanded.

While the theoretical importance of Anderson's arguments is well taken, their operation is based on a CGE model which is not readily available for developing economies. We suggest that the only way to get an operational estimate of alternative structures is to employ the CGE framework across a large number of developing countries considering trade liberalization efforts.¹⁷

III.2 Tariff Reductions under the Assumption of a Government Budget Constraint with Positive Collection Costs

As an alternative to the Anderson formulation we turn to the work of Yitzhaki and Pelzman and consider the government budget constraint under an environment of positive administrative costs of collecting domestic tax substitutes.¹⁸

We start with the assumptions that the Government sector has an exogenous revenue constraint which increases and decreases over time with changes in demand. It is well understood, however—as pointed out by Yitzhaki, Pelzman and later by Kubota—that G is never really zero. Earlier commitments for expenditure and interest payments on debt, as well as other 'authorized' expenditure items, make $G > 0$, regardless of initial income.

It is a standard assumption in the literature to begin modeling the consumer having a linearly homogeneous Cobb-Douglas utility function and exogenous income Y . This income is generally viewed in the trade literature as the factor endowment. Producer prices are assumed to be fixed. There are $n + 1$ goods in the economy, where:

goods 1 to n : are consumed domestically (including one imported good)

good $n + 1$: is produced domestically and exported (not consumed at home).

¹⁷ A recent World Bank working paper by Devarajan, Go and Li (1999) attempt to do just that for 60 developing countries.

¹⁸ See Yitzhaki (1979) and Pelzman (1993). Kubota (1996) models the G constrained outcome in another way. The discussion below summarizes all three approaches.

The indirect utility of the consumer, in the presence of indirect taxes and income transfers is represented by:

$$V^q = \max V(y, q_1, q_2, \dots, q_n) = \max A y \prod_{i=1}^n (q_i^{-\alpha_i})$$

subject to $t_1 p_1 x_1 + t_2 p_2 x_2 = T$

where:

$x_i = \alpha_i \left(\frac{y}{q_i} \right)$ is the demand curve for good i .

T = indirect taxes assumed to be returned to consumers as a lump-sum subsidy.¹⁹

I = income transfers;

$y = I + T$;

q_i is the consumer price of i , such that $q_i = (1 + t_i) p_i$;

p_i is the producer price of i ;

t_i is the tax on i and we assume that $\sum_{i=1}^n \alpha_i = 1$.

The solution to the above problem, along the lines of Sandmo, is $t_1 = t_2$, that is, that all goods subject to a tax would be taxed at the same rate.²⁰

For simplicity it is assumed that producers of domestically consumed goods are perfectly competitive and face constant marginal cost p_i (fixed). On the export side it is assumed that these producers are owned by foreigners (foreign direct investment) that face increasing marginal costs and a perfectly elastic demand curve. The export sector is not taxed but is required to have an export license that restricts the quantity exported. The Government sets the export quantity so that foreign exchange earnings will equal the payment required for imports. Any resulting pure profits accrue to foreigners and do not affect the domestic income.

¹⁹ See Diamond and Mirrlees.

²⁰ See Sandmo (1976).

The tax collection agent is assumed to be the Government which has an exogenous revenue requirement G which is spent on items that do not enter the utility function of the consumer directly, such as national defense. It is assumed that there is a clear upper bound to the government's ability to raise revenue and that it has to choose between different tax instruments. Throughout, it is assumed that G will attempt to maintain tax neutrality.²¹

From a developing country perspective, there are limited instruments by which G can collect revenue. In this exercise, it is assumed that the choice is confined to tariffs on imported products and excise taxes on domestically produced products.²² Regardless of source all of these taxes will, in the context of this model, be treated as a general consumption tax, or in Yitzhaki's terms a lump-sum tax. The uniqueness of this approach is that the primary choice between instruments is driven by the varying collection costs. In this model, the tax on good i is assumed to have a fixed collection cost C_i associated with it. The fact that some taxes are easier to collect than others is a crucial variable in G 's decision, especially given its active budget constraint. If there were no such costs then the best policy for G , as noted above, is to collect Ramsey taxes from all goods, including imports, in order to eliminate the excess burden of taxation.

The literature on developing country experiences in collecting taxes is replete with anecdotal stories of the major hardship of collecting local taxes. In most of these developing countries there is a great deal of dualism in the tax collection business, with a substantial portion of economic activity in manufacturing conducted in what is called the 'gray' market, which is difficult to tax 'officially'.²³ Transactions in agricultural markets in rural areas are equally hard if not impossible to monitor, and therefore are difficult to tax as well. Finally, as Hillman (1989) has pointed out, political considerations are never far behind the tax decision. Normally, corporate profits are viewed as the 'ideal' sector to tax. But in many developing countries this sector is out of bounds to the tax agency, especially when it is controlled by a politically powerful individual or group and/or represents a 'sacred cow'. Combined with these problems is the permanent systemic problem of poor if non-existent administrative capacity to tax alternatives in many less developed economies.

Having set out all the caveats, for all $i \in [1, n]$, let collection costs associated with i be less than total consumer spending, $C_i < \alpha_i y$. Any sector k for which $C_k \geq \alpha_k y$ is a sector that is very expensive to tax, and hence, not a part of the potential base. The

²¹ Although an exogenous revenue constraint does not apply to all developing countries, the assumption is sufficiently realistic to the majority of our sample. There are always the inter-temporal requirements on developing countries, such as the foreign debt borrowed by the previous government, or spending that is authorized by another branch of the government.

²² We are not concerned with different proportion of local and foreign content based on the various preferential trading arrangements (PTA) of developing countries, all with varying country of origin rules.

²³ There are many ways for G to tax this sector, but there are major problems of leakages.

government's policy choices include: the tax rates t_i and the tax base γ to maximize the utility of the consumer subject to G's revenue constraint.²⁴

$$\max_{t_i, \gamma} V(t(\gamma; G)) = \max_{t_i, \gamma} A \prod_{j=\gamma+1}^{\gamma} [p_i(1+t_i)]^{-\alpha_i} \prod_{j=\gamma+1}^n (p_j^{-\alpha_j})$$

subject to

$$\sum_{i=1}^{\gamma} t_i p_i x_i - \sum_{i=1}^{\gamma} C_i - G = 0$$

Since producer prices are assumed to be fixed, we maximize with respect to i and t . The upper bound of exogenous G is:

$$G \leq Y - \sum_{i=1}^n C_i$$

In order to operationalize the problem we can introduce the simplifying assumptions made in Kubota, whereby Yitzhaki's assumption of continuous number of products to tax is reduced to a discrete subset, such that for any γ and G one can estimate an optimal tax $t_i = t$ for all $i \leq \gamma$.²⁵ Other simplifying assumptions include $p_i = p$ for all i , given that producer prices are assumed to be fixed. Finally, $\alpha_i = \alpha = \frac{1}{n}$, for all i .

In effect G's problem becomes reduced to:

$$\max_{t, \gamma} = \max_{t, \gamma} A p (1+t)^{-\alpha \gamma}$$

subject to:

$$\gamma \alpha \frac{t}{1+t} - \sum_{i=1}^{\gamma} C_i - G = 0$$

²⁴ National income (y) is normalized to one so that C_i and G add up to 1.

²⁵ See Kubota (1996). It is assumed that the Ramsey Rule holds.

The government's policy choices are constrained to $[t, \gamma]$ when $t(\gamma; G) \geq 0$.²⁶

From Kubota we have that for a low level of G (relative to overall y), the government will choose to tax a few sectors beginning with the one with the lowest administrative collection cost. As tariff revenue declines and demand for G increases more sectors will be added to the tax base. In response to tariff liberalization, the state could choose among the following responses:

- (1) increase t and keep γ constant;
- (2) expand γ and lower t ; and/or
- (3) partially expand γ and simultaneously raise t .

Short of calculating a CGE for our two case studies, we take the approach presented by the Yitzhaki framework and attempt to model it empirically without relying on the assumptions made in Kubota.

²⁶ While we normally assume that t is strictly a tariff it may have many dimensions. Likewise, γ may have many layers.

IV. EMPIRICAL ANALYSIS

The empirical specification begins with the understanding that in all developing countries with a budget constraint and a relatively costless border tax, a duty reduction normally results in a decrease in the price of the domestic substitute; the magnitude of the price decline is determined by the domestic supply elasticity, the own- and cross-demand elasticities, and the change in the import price. When a revenue constraint becomes binding, alternative domestic taxes are introduced to make up for the shortfall.

Consider the case where the imported good is denoted as **f** and the competing (domestic) good as **d**. Q_f and p_f are the initial imports and domestic price of the foreign good, and Q_d and p_d are the initial shipments and domestic price of the domestic good. Units are chosen such that before tariff removal $p_d = p_f = 1$. Thus, before tariff removal, $V_f = Q_f$ and $V_d = Q_d$, where V_f and V_d are the values of imports and domestic shipments.

Denote by $\hat{\cdot}$ the proportional change in a variable, so that, for example, $\hat{z} = \frac{dz}{z}$. The proportional changes in the dollar value of imports and domestic shipments due to the tariff elimination are then

$$\hat{V}_f = \hat{p}_f + \hat{Q}_f \quad \text{and} \quad \hat{V}_d = \hat{p}_d + \hat{Q}_d$$

Following traditional partial equilibrium analysis, one can assume that imports in the protected sector are want-independent of all goods except the domestic good. Thus, the compensated, cross-price elasticity of demand between **d** and all other goods except **f** is zero. In this case, the new equilibrium values of the price of the domestic good, the output of the domestic good, and imports of the foreign good (p'_d, Q'_d, Q'_f) depends on the values of five elasticities: the elasticity of demand for **f**, the two cross-price elasticities of demand between **d** and **f**, the own-price elasticity of demand for **d**, and the elasticity of supply for **d**.

The markets for **d** and **f** are described by the following equations:

$$\hat{Q}_d = \varepsilon_{dd} \hat{p}_d + \varepsilon_{df} \hat{p}_f$$

$$\hat{Q}_f = \varepsilon_{fd} \hat{p}_d + \varepsilon_{ff} \hat{p}_f$$

$$\hat{Q}_d = \varepsilon_d \hat{p}_d$$

where ε_{ij} is the uncompensated elasticity of demand for good i with respect to price j , and ε_d is the elasticity of supply of good **d**. The three equations represent a system of equations in the endogenous variables \hat{Q}_d, \hat{Q}_f and \hat{p}_d . \hat{p}_f is an exogenous variable. Solving the system yields the following:

$$\hat{p}_d = \left[\frac{\varepsilon_{df}}{\varepsilon_d - \varepsilon_{dd}} \right] \hat{p}_f$$

$$\hat{Q}_d = \varepsilon_d \left[\frac{\varepsilon_{df}}{\varepsilon_d - \varepsilon_{dd}} \right] \hat{p}_f$$

$$\hat{Q}_f = \left[\varepsilon_{ff} + \varepsilon_{fd} \left(\frac{\varepsilon_{df}}{\varepsilon_d - \varepsilon_{dd}} \right) \right] \hat{p}_f.$$

In our case, as tariffs are reduced, and demand for government expenditure either remains constant or expands, the affected local government will have to respond by maintaining elements of γ constant while some elements expand. The elements of γ which are most likely to expand are still import-related although they are not referred to as import duties. In the case of Morocco these are the **parafiscal** import taxes which are applied to imports. In the case of Jamaica they are the special duties applied to agriculture. To take advantage of these substitutes to tariffs one should estimate a pass-through equation across countries. For the Moroccan or Jamaican cases, and using the above equation, we can write the relative domestic price as:

$$\frac{P_D}{P_W} = (1+t) + (1+t)(1+\delta)\lambda$$

where P_D is the Moroccan price of the imported good after all taxes and λ is the nominal parafiscal tax. Note that the effective parafiscal tax is applied to both the dutiable value of imports and to the duty itself.

Differentiating the relative price with respect to the tariff rate reveals that removal of the tariff would lead to a reduction in the relative price by both the tariff cut and the reduction in the effective parafiscal tax as applied to the tariff. That is, it would equal:

$$\frac{\partial (P_D / P_W)}{\partial t} = 1 + \lambda(1+\delta)$$

which is greater than 1, reflecting the fact that relative prices will change by the tariff, the parafiscal tax and by a portion of the “hidden tariff” which is equal to the price wedge *times* the parafiscal tax ($\delta\lambda$).

If tariff-line data were available for some of the countries in our sample, then we could test for a general relationship explaining the degree of pass-through for commodities where there is both tariff liberalization and introduction of substitute rates, as in the case of Morocco. The estimated pass-through equation suggested below relates changes in the tax-inclusive import price to changes in (a) the tariff, (b) the alternative price wedge, and (c) other sector-specific duties. The specific equation that would be estimated is as follows:

$$\Delta P_m = \alpha_1 + \alpha_2 \Delta t + \alpha_3 \Delta \lambda + \alpha_4 \Delta \delta + \mu$$

where

P_m = tax inclusive import price;

t = ad-valorem tariff rate;

λ = parafiscal tax rate (e.g. Morocco);

δ = other price wedge rate

Δ = difference between pre- and post tariff liberalization periods; and

μ = error term.

Barring this level of tariff line data we start with a simple econometric testing of the demand for tax revenue and its various supply components over the entire period 1980 – 2002, over 38 developing countries²⁷. The equation estimated is of the following form:

$$X16 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \mu$$

where:

X16 is the current government revenue requirement, measured as the share of government expenditure in GDP;

X1 is taxes on income, profits and capital gains as a share of total revenue;

²⁷ See Appendix for data sources.

- X2 is taxes on individual income as a share of total revenue;
- X3 is taxes on corporate income as a share of total revenue;
- X4 is social security contributions as a share of total revenue;
- X5 is taxes on work force as a share of total revenue;
- X6 is taxes on property as a share of total revenue;
- X7 is taxes on domestic goods and services as a share of total revenue;
- X8 is VAT as a share of total revenue;
- X9 is international trade taxes as a share of total revenue;

It is expected that:

β_9 will be <0 ; and that

$\beta_1 \dots \beta_8$ will represent changes in alternative domestic taxes represented by γ . Some of these will be >0 and other <0 depending on the ease of collection.

The results for an across-the-sample regression using OLS are presented in Table 2. Without making any adjustments for error structure, the general OLS results suggest that when tariff liberalization occurs the substitute increase in tax revenue occurs at the level of the VAT and taxes on labor.

V. TARIFF LIBERALIZATION & TAX REFORM IN MOROCCO

V.1 Pre-1983 Economic Environment

Post-1956 independent Morocco had many similarities to other developing countries, namely a dual economy and a shared economic profile with its predecessor colonial empire. Morocco inherited the French legal and economic structure which affected their inter-governmental fiscal system and social welfare structure.²⁸ This system remained largely intact through the late 1970s when the World Bank and the IMF initiated intensive restructuring programs designed to help Morocco to develop its own path of economic development. An assessment of Morocco's experience with tariff liberalization and fiscal restructuring must take into account this historical constraint.

In the post-independence period, Morocco, under high tariff distortions, pursued an import substitution strategy and maintained a gross domestic product (GDP) growth rate close to its population growth of 3 percent.²⁹ GDP growth greatly exceeded this steady expansion between 1973 and 1977, which can be attributed in part to the 1974-76 boom in phosphate prices and the associated expansion of the mining, construction, and energy sectors. A second major causal factor was the increase in public sector investment, to a high of 34 percent of GDP in 1977. Growth declined intermittently between 1978 and 1980 in line with the stabilization efforts made necessary by the 1974-76 boom. In 1981, the growth rate turned negative in the wake of a 23 percent drought-induced decline in agricultural production relative to the preceding year.³⁰

Between 1970 and 1981, government spending as a proportion of GDP nearly doubled, rising from 21 to 37 percent. During the same period, government tax revenues as a proportion of GDP only increased from 18 to 23 percent, mainly due to hikes in tax rates and to the windfall in export revenues. In response to this windfall, the Government of Morocco (GoM) tripled its investment program, increased substantially government wages and vastly expanded its activities in the social sectors. It also initiated a major defense build-up to deal with the Sahara problem. The phosphate boom was short-lived, however, and the rigidities in the budgetary system led to a substantial increase in the

²⁸ See, World Bank, Report No. 11894-MOR, June 30 1994; and Report No. 11557-MOR, 2 July 1993.

²⁹ The most important natural resource is rock phosphate. Morocco has about 75 percent of the world's known reserves. An increasing share of production is processed domestically into phosphoric acid and fertilizers for export. The non-chemical industrial sector produces a wide range of goods, including leather and mechanical and electrical products. The agricultural sector, which has historically been a leading source of employment, is predominantly dependant on water resources and oriented toward food production (cereals, edible oil seeds, potatoes, and pulses) and livestock (sheep, poultry, and beef). Irrigated agriculture accounts for about 10 percent of total arable land but contributes over half of the sector's value added (mainly citrus, vegetables, and sugar) as well as two-thirds of its exports. The fishing sector (canned sardines, fresh and frozen white fish) is of growing importance. In general, Morocco's exports reflect its diversified economy. Phosphates, textiles, electronic goods, handicrafts, citrus fruits, vegetables, and canned and frozen fish are exported. Drought is the main factor underlying the fluctuations of agriculture's share in GDP and the country's overall growth rate.

³⁰ See Horton (1990).

GoM's deficit. Coupled with the second oil shock, this led to large fiscal and external payments imbalances and rapid growth of government debt.

The budget deficit was largely financed by recourse to external financing, which came to account for about two-thirds of total debt and ultimately placed Morocco into the group of heavily-indebted countries. The GoM also financed the deficit through seignorage, to the equivalent of about 4 percent of GDP, and through the build-up of large payment arrears by the Treasury. While this practice had a recessionary impact on domestic activity, it did at least help to maintain a low inflation rate.

By 1982, the budget deficit was over 14 percent of GDP, and foreign debt continued to mount. Morocco's debt-service ratio (based on exports of goods and services) increased from 7.2 percent in 1975 to 49.0 percent in 1982,³¹ and the stock of external debt over exports increased from 78 percent in to more than 310 percent over the same period. In 1983, Morocco's foreign exchange-denominated debt was approximately 120 percent of GDP and amounted to 338 percent of its foreign exchange earnings.³² Interest rates steadily rose, and a simultaneous decline in phosphate prices and a rise in oil prices quickly turned the terms of trade against Morocco, leading to financial and balance-of-payments crises.

In 1983, Morocco rescheduled its private and official external debt. Although the real exchange rate, using the CPI as deflator, remained constant from 1973-79, using the WPI indicates that it actually appreciated by about 12 percent. The steep increase in effective protection due to the increase of the "taxe speciale" (SIP) and the extensive use of quantitative restrictions (QR's) for all imported goods that had import substitutes meant that the exchange rate was already largely overvalued by 1980. From 1980 to 1983, the *dirham* had a real devaluation of almost 14 percent (the terms of trade decreased by about 8 percent), but its effect on the balance of payments was largely nullified by the high rate of domestic absorption caused by the GoM's monetary and fiscal policies.

Morocco's access to international financial markets was sharply reduced in 1983, and expectations of further increases in flows of concessional assistance failed to materialize. Foreign exchange reserves virtually disappeared, prompting the GoM to impose emergency import restrictions in March. Meanwhile, the level of new budgetary investment appropriations had to be curtailed.

V.2 Economic Stabilization Program in the 1980s

As a partial response to its financial crises, the GoM introduced a new stabilization program which was prepared and supported by an 18-month IMF stand-by arrangement. The principal objective of the stand-by (which covered the July 1983 – December 1984

³¹ This figure reached 68% in 1986.

³² See David Sewell and Wayne Thirsk, (1997) and World Bank, Report No. 10157-MOR, (June 1992).

period) was to reduce the current account deficit of the balance of payments before debt relief from 13 percent of GDP in 1982 to 9 percent in 1983, and to a target of 7.3 percent by 1984, through limits on monetary expansion, reductions in the Government deficit, and continued use of a flexible exchange rate policy. The program envisaged a reduction in the Government budget deficit (before relief on interest payments from debt rescheduling) from more than 12 percent of GDP in 1982 to 8.7 percent in 1983, and a target of 7.8 percent in 1984 on a cash basis. To contain the deficit from what was originally approved, the Government raised the price of subsidized foodstuffs, increased the price of fertilizers, electricity, water, and petroleum products, reduced net public service recruitment, and reduced capital appropriations.³³

In addition to focusing on macro-stabilization efforts, Morocco as part of its Trade Policy Adjustment loan with the World Bank, initiated a set of structural reforms to restore a viable balance-of-payments position in the medium term with a package of measures to restructure trade incentives in order to eliminate the bias in favor of production for the domestic market as compared with exports and to promote the efficient use of resources.³⁴

As a result of a depreciation of the real effective exchange rate, Morocco's exports became far more attractive. At the same time, import duties were liberalized: the special import tax was reduced from 15 to 10 percent; the remaining prior import deposit requirements were reduced from 15 to 10 percent in January 1984 and eliminated in July; and the maximum rate of customs duty was reduced to 60 percent so as to decrease the excessively high incentives previously granted to some import-substituting industries. Finally, the emergency quantitative import restrictions that had been imposed in March 1983 were progressively removed.

On the export side, special customs regimes for exporters were extended and improved; export licensing was removed for all but a few products; and the monopoly of the state marketing board (OCE) on exports of processed food products was abolished. To further aid domestic exporters, in 1983 and 1984 Morocco implemented a reform of its export credit and export credit insurance system and offered a substantial increase in interest rates on remittances of its overseas workers. The domestic counterpart to these

³³ IMF, Article IV reports, various years.

³⁴ The World Bank began to provide substantial balance of payments support that was conditional, however, upon the adoption of policy reforms in the industrial, financial, agricultural, and public enterprise sectors. The first two Bank loans- ITPA1 and 2-were designed to reform the structure of incentives and relative prices of exportables, importables, and nontraded goods. The goal was to increase the domestic supply of foreign exchange through economically efficient exports and import substitution, hence improving the efficiency of resource allocation. To this end, key proposals were a devaluation, accompanied by a compensating reduction of the import levies, especially the SIT and import duties; a reduction in protective import duties (specifically lowering the maximum bound rate); and a liberalization of competing imports. The revenue shortfall was to be recovered by an increase in the rates of the TPS and/or a reduction in government expenditures. Furthermore, policy reforms were proposed for the financial, agricultural, and public sectors. See World Bank Report No. P-3707-MOR.

border liberalizations was an initial liberalization of its domestic price controls in the manufacturing sector.

The short-term results of these measures were more positive than expected. In 1983, the overall budget deficit was substantially reduced, to 9 percent from about 15 percent of GDP in 1982. This was achieved through a major reduction in consumption, investment and imports relative to their high levels in previous years. The share of exports and gross domestic savings increased substantially. The current account deficit of the balance of payments prior to the correction provided by debt relief was reduced from nearly 13 percent of GDP in 1982 to 7.5 percent of GDP in 1983. Moreover, the Government budget deficit, largely financed by the build-up of arrears, was reduced from 15.2 percent in 1982 to 12.1 percent of GDP in 1983.

The current account deficit of the balance of payments leveled off in 1984 at about 10 percent of GDP, but still represented an increase of 1.8 percentage points over the IMF stand-by target for that year. There was continued favorable response of manufactured exports to the broad basket of export incentives, with the exception of food products (due to lower than expected rainfall) and phosphates. The share of exports in GDP increased about 6 percentage points relative to 1982, while imports remained constant. The overall budget deficit remained constant at about 12.5 percent of GDP, including arrears.

In 1985, Morocco continued its program of trade liberalization and export promotion supported by a second Industrial and Trade Policy Adjustment loan from the World Bank. A key component of this program was a 8-9 percent real devaluation that maintained the competitiveness of Moroccan exports and compensated, on the import side, for the progressive decline in protection that resulted from trade liberalization. The special import tax, which was reduced from 15 to 10 percent in January 1984, was further cut to 7.5 percent in January 1985. Further dampening hopes of renewed incentives for import substitution, the maximum import customs duties (bound rates), which were reduced to 60 percent in 1984, were lowered again to 45 percent in 1985, equivalent to about 60 percent of nominal protection. The medium-term objective in Morocco's tariff policy was to reduce the overall level of protection to 25 percent through a reduction of the maximum bound rates and an evening out of the spread in tariff rates within and between sectors.

The short-term results of these liberalization measures were positive but also highly correlated with better weather. The current account deficit (before debt relief) improved 1.7 percentage points to 7.4 percent of GDP. However, the government budget deficit, including arrears, improved only marginally to about 10.1 percent of GDP.

The drop in international prices for oil and wheat in 1986, accompanied by a record crop, had a major favorable effect on Morocco's balance of payments, equivalent to roughly 4 percent of GDP. The IMF, recognizing the difficulty of the structural reforms adopted by Morocco in an environment of volatile commodity prices and sensitivity to weather, adopted a new stand-by arrangement in November 1986. The

major components of this arrangement included supporting a program of: (i) reducing the external current account deficit from 1.7 percent of GDP in 1986 to zero in 1987 with the elimination of external arrears and increases in foreign exchange reserves to the equivalent of one month of imports; (ii) reducing the fiscal deficit, on a payment order basis, from 6.6 percent of GDP in 1986 to 4.3 percent in 1987; and (iii) holding the rate of increase of domestic bank credit at 7.1 percent in 1987.³⁵

V.3 Recent Economic Developments

Morocco continued to pursue the economic reforms initiated in the early 1980s throughout the 1990s. During this period, the overriding objective was to fine-tune a development strategy aimed at strong, “healthy” and sustainable economic growth. This implied, *inter alia*, a quest for macroeconomic balances. Structural reforms (particularly continuation of the privatization program, an improved business climate, and the granting of certain incentives to investors) were also introduced in order to modernize the economy.

With respect to budgetary policy, the measures taken to limit spending predominantly focused on eliminating certain subsidies (on oilseeds, oil, and sugar for industrial use) and improving budget performance. Efforts were also made to increase revenue by broadening the tax base, raising the ordinary value-added tax from 19 to 20 percent in 1996, and improving the collection of duties and taxes.³⁶ In general, the budget deficit has closed steadily since 1995. However, this performance is partially the result of financing government spending through the income derived from privatization, concessions granted by the State, and, on an exceptional basis, contributions to the State’s budget by government enterprises, such as the Moroccan Phosphates Board (OCP) and the National Electricity Board (ONE) in 1998. In the long run, budgetary reform will be essential because the absence of restrictive budget constraints and the financing of some of the State’s current spending through special resources can only be maintained with difficulty.

In addition to the global objectives of achieving macroeconomic balances, Morocco’s official monetary policy is designed to limit inflation. For this purpose, the GoM has established a target annual growth in the monetary supply (in general, M3) tied to a trend in nominal GDP. Diversions from this target have resulted in ad-hoc measures to remedy any abnormal change in liquidity likely to have a negative impact on price levels. In addition to the figure for obligatory reserves (14 percent in March 2003 compared with 10 percent in December 2002) for demand deposits, refinancing and open

³⁵ Although the World Bank and IMF programs had many points in common, there is one major and fundamental contradictory signal. That is, on the reduction of the import levies, especially the SIT. The IMF’s programs, unlike that of the Bank, continued to emphasize reductions in the budget deficit rather than trade liberalization.

³⁶ The measures taken to improve the collection of duties and taxes range from upgrading and modernizing the tax administration to combating tax fraud (by imposing penalties since 1997) and smuggling (customs duties have been lowered on products that were frequently smuggled).

market operations (withdrawal and injection of liquidity into the market) and recovery of liquidity (in force since 1999) are used to correct any abnormal variation in the monetary supply. In 2001, monetary rehabilitation was implemented in order to circumscribe the effects of the flow of foreign currency resulting from partial privatization of Maroc Télécom, the increase in transfers by Moroccan residents abroad, the rise in earnings from tourism, and the disposal of foreign bank notes following the transition to the euro. This was underpinned by open market operations and a recovery in liquidity and then by the lowering of leading rates.

As the summary macro data in Table 4 demonstrates, Morocco managed to maintain monetary discipline in the late 1990s and early 2001-02 period. This has been sustained by the fact that the Treasury has not made use of conventional advances (since 1998) or statutory advances (since 2001) from the Central Bank.³⁷ Monetary policy has thus been a decisive factor in controlling inflation in Morocco and has helped to keep the *dirham* relatively stable. In order to boost the anchoring of the *dirham* to the euro, on April 25, 2001 Morocco revised the basket of currencies composing its currency. This led to a depreciation of 5 percent (equivalent to a depreciation in the nominal effective exchange rate of 3.6 percent and in the real effective exchange rate of 5.4 percent) of the value of the *dirham* compared to the euro.³⁸

³⁷ Since 2001, the Treasury has been solely financed by domestic market resources.

³⁸ Bank Al-Magrib (2002). The revision was decided at a time when the euro was still weak in comparison with the United States dollar and, to a certain extent, the dirham was appreciating against the euro. The aim was, *inter alia*, to make the dirham more stable *vis-à-vis* the euro, the currency of Morocco's leading trade partner.

On the structure of taxes, the data in Table 5 present an overview in two specific periods, 1989/90 and 1999/00. While the data point to a constant share of tariff revenue over the decade, there has been a general increase in revenue from taxes on income, profits and capital gains. In 2002, trade taxes fell from 4.7 percent of GDP to 3.5 percent. This reflected both continued reductions in external tariff rates under the agreement with Europe and the elimination of tariffs and financed subsidies on edible oils. There were substantial reductions in tariffs on imported inputs and capital goods.

Taxes on goods and services have not increased significantly in the past decade. VAT revenues declined from 6.1 percent of GDP to 5.8 percent by 2002. This reflects the continued impact of trade liberalization.³⁹ According to Economic Intelligence Unit (EIU) reports, the GoM is expected to have revenues of \$11.8 billion in 2004, up from \$10.7 billion in 2003, with public expenditure of \$15 billion substantially higher than its 2003 level of \$11.6 billion, leaving a budget deficit of \$3.2 billion or 4.3 percent of GDP. This represents a significant jump over its 2003 budget deficit of \$905.6 million or 1.9 percent of GDP.

Perhaps the best indicator of Morocco's economic turnaround was the recent announcement of a successful conclusion of the US-Morocco negotiations on the establishment of a free trade agreement (FTA). The agreement still needs to be ratified by US Congress and by the Moroccan parliament.⁴⁰ Once the agreement goes into effect, the Moroccan FTA will result in tariffs being removed immediately on 95 percent of bilateral trade in consumer and industrial products, with all remaining tariffs on such items eliminated within nine years. According to the US Trade Representative (USTR), the US-Moroccan FTA is considered to be the best market-access package negotiated yet with a developing country. US exporters of farm produce, including wheat, corn, poultry and beef, will gain enhanced access. Currently, US products entering Morocco face an average tariff of over 20 percent, while Moroccan products are subject to an average tariff of 4 percent as they enter the US market.

The FTA offers new access for US providers of financial services, telecoms, IT and distribution services, and includes provisions for labor and environmental protection. It also provides for extensive trademark, copyright and patent protection. The agreement specifically ensures that government marketing-approval agencies will not grant approval to patent-infringing pharmaceuticals.⁴¹

³⁹ See IMF, Article IV, May 2003.

⁴⁰ Business Middle East, March 16th-31st 2004).

⁴¹ Business Middle East, 16 Mar 2004.

Table 5
Morocco, Central Government Revenue Structure
(In Percent of GDP)

	1989-1990	1999-2000
Total Revenue	23.0	28.2
Tax Revenue	20.8	26.1
Non-Tax Revenue	2.1	2.1
Taxes on Income, Profits, and Capital Gains	5.5	7.6
Of Which:		
Individual	1.6	3.4
Corporate	3.9	4.2
Social Security Taxes	1.0	1.9
Domestic Taxes on Goods and Services	10.6	11.9
Of Which:		
VAT	5.6	6.1
Excises	5.0	5.8
Import Duties	4.7	4.7
Property Taxes	0.6	0

Source: IMF, Article IV, 2003.

In order to gain some insight into the trade-offs between trade liberalization and the resulting changes in domestic tax structure, rates and base, we begin with a detailed review of the liberalization measures adopted in Morocco over the past two decades.

V.4 Developments in Morocco's Trade and Investment Policies

Changes in Morocco's international trade policy between 1973 and 1995 reflected the government's attempts to liberalize trade and to rationalize the structure of indirect taxation of imports. In 1970, Morocco's indirect tax structure had the traditional combination of multiple import levies (equivalent, in effect, to import duties) and a multi-tiered manufacturer's sales tax (with a credit mechanism) applied to domestic production and imports. In addition, certain goods (mainly sugar, alcoholic and nonalcoholic beverages, and petroleum products) were subject to excises, whether imported or domestically produced, with no provision for credits.

An import would be subject to a combination of four duties and taxes: the single-rate special import tax (SIT); a variable, product-specific import duty (DD); the manufacturer's sales tax (TPS); and finally, the single-rate stamp duty (SD). The special import tax and the import duty were levied on the customs and freight value (C&F, normally considered as customs value), and the manufacturer's sales tax on the landed value including the SIT and the DD. However, the stamp duty's base was equal to the sum of the SIT, the DD, and the TPS, thus excluding the CIF value of the import duty itself.

Between January 1975 and July 1979, Morocco increased import duties and taxes for both protective and revenue reasons. Greater protection was granted in the form of higher customs duties, whereas revenue enhancement was sought by across-the-board

increases in the special import tax and the stamp duty.⁴² Not surprisingly, no changes were made in the manufacturer's sales tax, which is applied to the larger base of both imports and domestic production of goods and services. Indirect taxes on imports and domestic goods were not raised again until January 1982, when the standard rate of TPS was increased from 15 to 17 percent. There was a further two-point increase in the standard rate of the TPS in mid-1983.

From 1982 to 1983, the burden of raising additional revenues shifted from import duties and their equivalents (the SIT and SD) to the TPS. This process went further as the incidence of the SIT was reduced in January 1984 from 15 to 10 percent and a year later to 7.5 percent. These reductions were not accompanied by increases in the rates of the TPS. At the same time, the top rate of the import duty was progressively reduced to 100, 60, and finally 45 percent in January 1986. A third reduction in the SIT from 7.5 to 5 percent was enacted on January 1, 1987, but this was effectively neutralized by an equivalent 2.5 percent increase in most import duties. The manufacturer's sales tax was replaced in April 1986 by a value-added tax (VAT) applied to imports as well as domestic manufacturing and wholesale distribution. On average, deductions were increased and rates left unchanged or reduced. This led, at least in the short run, to a downward trend in revenues.

In the post-1995 Uruguay Round environment, Morocco has complied with the general trend in reducing taxes on international trade, with continuous trade liberalization, and a proliferation of free trade agreements. Import duties in Morocco have remained constant at 4.7 percent over the past decade. According to the IMF's index of trade restrictiveness (ranging from 1 to 10), Morocco is ranked at the midpoint with a score of 5. The average customs duty during the past decade stands at 15 percent, signaling the persistent use of exemptions, the impact of free trade agreements, the implementation of the AAEUs ("Association Agreements with the European Union"), and an import composition skewed toward lower tariff bands.

As part of the Uruguay Round agreements, Morocco has implemented a series of laws to bring it in conformity with the WTO Agreements.⁴³ A summary of the trade related legislation in force by WTO agreement is listed in Table 6.

⁴² See IMF, Article IV.

<i>Date</i>	<i>Special Import Duty (%)</i>	<i>Stamp Duty (%)</i>
Before Dec. 31, 1974	2.5	1
After Oct. 1, 1975	5.0	1
After Jan. 1, 1977	8.0	4
After Jan. 1, 1978	12.0	4
After Aug. 1, 1979	15.0	10

⁴³ The material presented in this section is based on both the Report of the Government to the WTO, WT/TPR/G/116, 19 May, 2003 and Report of the Secretariat, WT/TPR/S/116, 19 May, 2003.

Table 6
Moroccan trade-related legislative texts in force
As of March 2003

Area	Legislative text	Date of entry into force
Import and export of goods	Law No. 13-89 on foreign trade	1992, amended in 1997
	Implementing decrees for Law No. 13-89 on foreign trade	1993, 2000
Customs regulations	Customs and Indirect Taxation Code	1977, amended in 2000
	Seven implementing decrees for the Customs Code	1977, 1996, 1998, 1999, 2000, 2002
	Finance Law (simplification of customs clearance procedures)	1995
	Decree determining the procedures for implementing the new free industrial warehouse customs regime established under the Finance Law	1995
	Two Dahirs determining the rate of the customs tariff on imports and the amount of import duty; Decree amending the amount of duty imposed on the import of certain goods	1957, 1961, 1998
	Decree suspending import duties and value added tax on the import of certain types of barley	2002
	16 Decrees amending the amount of customs duty imposed on the import of certain products	1997, 1998, 1999, 2000, 2001
	Two Decrees suspending import duties and value added tax on the import of certain products	2001
	Law No. 30-85 on value added tax (establishment of value added tax)	1985
	10 Decrees implementing Law No. 30-85 on value added tax	1986, 1992, 1994, 1996, 1999, 2000, 2001, 2002
Parafiscal import tax	Decree establishing the parafiscal import tax for economic financing and the inspection of exports at a rate of 0.25 per cent <i>ad valorem</i>	1994
	Decree determining the products exempt from the parafiscal tax	1995
Veterinary sanitary inspection upon import and export	Decree determining the rate of veterinary sanitary inspection fees for the import of animals, animal foodstuffs, freshwater and marine products	1996
"Industrial" fish	Dahir establishing the special tax on "industrial" fish	1952
Dried beet pulp		
Commercial Code	Law No. 15-95 containing the Commercial Code	1996
Pricing and competition	Law No. 06-99 on pricing freedom and competition and its implementing decree	2001
Free export zones	Law No. 19-94 on free export zones and its implementing decree	1995
	Decrees Nos. 2-96-511 and 2-96-512 on the creation of the Tangiers and Nador free export zones	1997
	Decree No. 2-98-99 granting the concession for the development and management of the Tangiers free export zone to the "Tanger Free Zone" company	1998
	Decree-Law No. 2-02-644 creating the Tanger-Méditerranée Special Development Zone	2002
Government	Decree on government procurement	1999

Table 6
Moroccan trade-related legislative texts in force
As of March 2003

Area	Legislative text	Date of entry into force
procurement		
Commercial courts	Law establishing the commercial courts	1997
SPS	Law No. 24-89 laying down veterinary sanitary control measures for the import of animals, animal foodstuffs, products, products of animal origin, animal reproduction products, freshwater and marine products, and its implementing decree determining veterinary sanitary control measures for the import of animals	1993
	Decree No. 2-94-74 fixing the fees for veterinary sanitary inspection for the import of animals, animal foodstuffs, products of animal origin, animal reproduction products, freshwater and marine products	1996
	Decree No. 2-94-729 on the suspension of duties and taxes on the import of pure-bred live breeding animals of the camelidae species	1994
New varieties of plants	Law No. 9-94 on the protection of new varieties of plants and its implementing texts	1997
	Decree No. 2-01-2324 implementing Law No. 9-94 on the protection of new varieties of plants	2002
	Dahir No. 1-73-439 enacting the International Plant Protection Convention done at Rome in 1951	1974
	Four Dahirs regulating the sanitary inspection of plants	1927, 1949, 1950, 1954
	Law No. 1-76-472 amending Dahir No. 1-69-69 (1969) regulating the production and marketing of seeds and seedlings	1969, 1977
	Law No. 42-95 on the control and organization of trade in pesticides for agricultural use	1997
	Dahir on the import of cotton seeds and the growing of cotton	1939
	Decree No. 2-63-369 banning the import and transit of all plants or parts thereof belonging to the eucalyptus genus Herit, Myrtacea family	1963
	Decree No. 2-97-512 on security for the proper conduct of import operations for cereals and pulses.	1997
	Dahir fixing the fee for sanitary inspection of imports and exports of plants, parts thereof, or plant products	1933
	Dahir on the control of exports of fruit and early fruit and vegetables of Moroccan origin	1932
Labelling	Decree fixing the labelling requirements for foodstuffs	2002
Intellectual property	Dahir on industrial property rights	1916
	Law No. 17-97 on industrial property protection, enacted in 2000	Not yet in force
	Law No. 13-99 establishing the Moroccan Office for Industrial and Commercial Property (OMPIC)	2000
	Law No. 2-00 on copyright and related rights	2000
	Decree No. 2-64-406 creating the Moroccan Copyright Bureau	1965
Investment	Framework Law No. 18-95 constituting the Investment Charter	1995
	Decree No. 2-00-895 implementing Articles 17 and 19 of Framework Law	2001

Table 6
Moroccan trade-related legislative texts in force
As of March 2003

Area	Legislative text	Date of entry into force
	No. 18-95	
	Decree No. 2-02-350 approving the single form for the creation of enterprises	2002
Agricultural investment	Dahir No. 1-69-25, as amended and supplemented by Dahir No. 1-97-171 and Dahir No. 1-01-55 constituting the Agricultural Investment Code	1969, 1997, 2001
	Decree No. 2-98-365 establishing a premium for certain agricultural investment	1999
	Decree No. 2-98-366 establishing a premium for the upgrading of citrus fruit products	1999
	Decree No. 2-98-367 supplementing Decree No. 2-85-891 determining the procedure for distribution of the financial support granted by the State in order to intensify agricultural production	1999
	Decree No. 2-85-891, as subsequently amended	1985, 2002
	Decree No. 2-69-313, as amended and supplemented by Decree No. 2-01-1966 regulating State incentives for the purchase of agricultural equipment	2002
Special regulations: Handicrafts	Law No. 1-73-653 on technical control of the manufacture, packaging and export of Moroccan handicrafts	1975
Cereals and pulses	Dahir No. 1-95-8 enacting Law No. 12-94 on the organization of the National Interprofessional Cereals and Pulses Board and the organization of the market for cereals and pulses	1995
	Dahir No. 1-96-101 enacting Law No. 17-96 supplementing Law No. 12-94	1996
	Decree No. 2-97-512, as amended by Decree No. 2-02-327 fixing the amount of security for the proper conduct of important operations for cereals and pulses	1997, 2002
	Convention on Trade in Cereals	1995
Pharmaceuticals	Dahir No. 1-59-367 of 19 February 1960 regulating the exercise of the profession of physician, pharmacist, dental surgeon, herbalist, and midwife	1960
	Decree No. 2-76-266 of 6 May 1977 on approval of authorization for the sale of pharmaceutical specialities and advertising of special medicines in dispensaries and of pharmaceutical specialities	1977
Hydrocarbons	Dahir No. 1-95-141 enacting Law No. 4-95 amending and supplementing Law No. 1-72-255	1995
	Decree No. 2-72-513 implementing Law No. 1-72-255	1973
	Decree No. 2-95-699	1996
	Dahir No. 1-99-340 enacting Law No. 27-99 amending and supplementing Law No. 21-90 on prospecting and exploiting hydrocarbon deposits	2000
	Decree No. 2-99-210 amending and supplementing Decree No. 2-93-786 implementing Law No. 21-90 on prospecting and exploiting hydrocarbon deposits	2000

Source: Ministry of Industry, Trade and Telecommunications, Trade and Industry Department.

As enumerated in the trade regulations, Morocco continues to make major changes in its trade regime. The application of customs tariffs based on the tariffication of quantitative restrictions on imports was completed in 1996. Since then, the licensing system has only applied to products covered by international agreements to which Morocco is party or for sanitary or phytosanitary reasons. Price controls and import monopolies have been abolished on almost all products and customs formalities simplified. Consumer subsidies are confined to domestic flour of common wheat. Structural reforms, including privatization, have made progress. The legislation on government procurement and on competition entered into force in 1999 and 2001, respectively, and progress has been made in harmonizing intellectual property rights legislation with the international agreements signed by Morocco.

Customs duties have been lowered on a number of non-agricultural products. In order to simplify import duties, the fiscal levy on imports (PFI) was absorbed into customs tariffs in 2000. However, this integration, together with Morocco's full application of rates resulting from tariffication and the disaggregation of tariff lines from 8 to 10 digits in the Harmonized System, has meant a 33.4 percent rise in the average duty applied (as compared with 23.5 percent in 1995). Currently, over one-third of the tariff lines are subject to rates higher than the bound rates. Moreover, the introduction of variable duties (applicable to around 40 tariff lines), which are levied in inverse proportion to the difference between the threshold price (fixed by the Government) and the import price, does not ensure compliance by Morocco with its commitments, either as regards tariff bindings or in relation to the WTO Customs Valuation Agreement, which Morocco has (in principle) been applying since October 1998.

While it is true that customs duties are being reduced, there are other methods by which one can restrict imports. Registration requirements and the documentation needed for import are among the easiest devices used to restrict trade. In the case of Morocco, natural or legal persons wishing to engage in international trade activities must be listed in the commercial register and the roll of business license holders.

While the act of importing does not require an authorization from the Foreign Exchange Board, imports of goods are, however, subject to registration of an import document⁴⁴ (an undertaking to import, an import license, or, in some cases, a prior import

⁴⁴ An import undertaking is a document valid for six months under which the importer undertakes to import goods into Morocco in exchange for the transfer of the corresponding price. It is drawn up for goods that can be freely imported. It is neither required for ad hoc imports nor for those covered by special regimes. See Article 16 of Law No. 13-89 on foreign trade, enacted by Dahir No. 1-91-261 of 9 November 1992, as amended and supplemented by Law No. 3-96, enacted by Dahir No. 1-97-63 of 12 February 1997.

declaration, or DPI) domiciled with a Moroccan bank.⁴⁵ This document permits customs clearance of the goods and their financial settlement.⁴⁶

To complicate the import function even more, Morocco requires the importer to produce the following additional documents: invoices; a banking certificate (indicating the bank of domiciliation and the value of the imports in foreign currency, the exchange rate and identification of the import document, and the value per article); and the duty-free entry voucher. The other documents required for customs clearance are: an import license (section (2)(vii)) and a DPI (section (2)(viii)) for those products subject to them; an invoice; transit documents for transport; an insurance certificate; and the packing list.

Import authorizations are required for products subject to special regulations (repression of fraud, sanitary and phytosanitary controls⁴⁷, industrial standards, etc.) and for purposes of foreign trade controls. A marketing authorization (authorization to sell pharmaceutical specialities – ADSP) is required prior to the manufacture, import, possession or marketing of any medicines. This is granted by the Ministry of Health taking into account the views of a commission of experts, and technical controls by the National Drug Control Laboratory.⁴⁸ Finally, all imported goods are subject to a detailed declaration, called a “Single Declaration of Goods” (DUM). The documents required include shipping documents such as bills of lading, air waybills, or consignment notes.

In general, products imported into Morocco may be subject to import duties, parafiscal import taxes, VAT, domestic consumption taxes, and a number of other duties and taxes. While the GoM now grants at least MFN treatment to all of its trading partners, the introduction of new rates for agricultural imports resulting from the tariffication of QR's, the absorption of the PFI into the import duty, and the disaggregation of the customs tariff nomenclature all contributed to an increase in the simple arithmetic average of MFN customs duties from 23.5 percent in 1995 to 33.4 percent in 2002. The 0.7 percent coefficient of variation shows moderate dispersion (from zero to 339 percent). The modal rate is 50 percent and applies to around 31 percent

⁴⁵ The importer undertakes to complete all the banking formalities prescribed in the foreign exchange regulations with a bank authorized to act as an intermediary. For the bank, domiciliation consists of carrying out the banking formalities required for imports on behalf of the client.

⁴⁶ The legislation does not impose any time limit on financial settlement of imports. Settlement may, however, only be made after the goods have actually entered Morocco or there is proof of shipment (to Morocco) in the form of a bill of lading. For capital goods, importers are authorized to transfer a deposit of up to 40 per cent of the f.o.b. value of the imports. They may also pay the import of certain products in advance (spare parts, consumables, samples against payment) up to an equivalent of DH 20,000 in foreign currency.

⁴⁷ A sanitary certificate is required for various products of animal origin, live animals, poultry, and eggs. Imports of seeds of eggplants and tomatoes and potato seedlings must be accompanied by a phytosanitary certificate attesting that they are free of parasites and have been screened, cleaned and placed in new packets.

⁴⁸ The application must be made by a pharmaceutical laboratory and backed up by a technical dossier.

of the total number of tariff lines. Around 58 percent of the lines have rates ranging from 30 to 50 percent.⁴⁹

In addition to the above, a further 0.25 percent parafiscal import tax now applies to imported goods. This is not imposed on imports under customs regimes, capital goods, equipment and tools, spare parts and accessories needed to promote investment, duty-free goods or goods not subject to import duties or taxes, and goods which are exempt from import duties and taxes in accordance with agreements or conventions signed with certain countries. Likewise, enterprises which undertake to make large-scale investment (exceeding DH 200 million) may be exempt when importing capital goods, equipment and tools required for their projects.⁵⁰

Two types of variable duty apply to certain cereals such as wheat and rice, soyabeans, colza, rape and sunflower seed, and sugar (See Table 7). For some categories of barley, rice and sorghum, two rates apply: one fairly high rate if the declared value is lower than the minimum threshold price fixed in the tariff for the good in question, and a lower rate when the declared value is higher than the minimum threshold price. The rates applicable to other products in Table 7 are constant for declared values that are equal to or exceed the minimum threshold prices fixed in the tariff and variable (ascending from the constant rate) for declared values that are below this threshold. In the latter case, the *ad valorem* equivalent of the duty (in inverse proportion to the import price) may vary from the constant rate (minimum) to an infinite figure.

During the Uruguay Round, Morocco finished binding all its tariff lines,⁵¹ with duties bound solely at *ad valorem* rates ranging from zero to 380 percent. Duties on non-

⁴⁹ The zero rate applies to 10 lines, more precisely to types of sulphur (HS 250300). The high rate of 339 per cent applies to certain types of live animals (goats, sheep, not pure bred) and their meat. The 260.5 per cent rate applies to live bovine animals (other than pure-bred breeding animals), and 284 per cent to their meat, as well as to the meat of equine animals, donkeys and mules, and some offal. This results in relatively high simple arithmetic averages of 83.4 per cent for live animals and 141.2 per cent for meat and edible offal. Agricultural products are the most protected with an average duty of 50.7 per cent, compared with 30.7 per cent for non-agricultural products. Average rates remain higher in the agricultural sector (around 40 per cent) than in the manufacturing sector (around 33 per cent) and mining (close to 22 per cent), when using the International Standard Industrial Classification (ISIC, Revision 2). Of all the sectors in the ISIC, agriculture has the highest proportion of rates exceeding 50 per cent. Overall, customs tariffs show mixed escalation, with a downward trend from the first to the second stage of processing (from 32.7 to 32.5 per cent) and an upward trend from the second to the third stage of processing, with an average rate of 34.3 per cent for the latter. The decrease in tariffs from the first to the second stage of processing is primarily due to the high taxation on agricultural products. With the exception of the paper industry, paper, printing and publishing articles, metal articles, machinery and equipment, and other manufacturing industries, customs tariffs escalate in all industries.

For 5,887 tariff lines, the rates applied exceed the bound rates; the number of such lines would have been 353 if import duties and the fiscal import levy had not been amalgamated in 2000. See WTO, Report by the Secretary, Appendix Tables.

⁵⁰ See discussion of Investment measures below.

⁵¹ In 1987, the transposition of 156 tariff lines bound in 1987 from the CCCN to the Harmonized System was certified (WTO document WT/LET/168 of 5 September 1997).

agricultural products were bound at 40 percent, with the exception of those bound in 1987. Duties on agricultural products, initially bound at high rates, have been lowered gradually in equal annual instalments, which should bring the maximum (bound) rate down to 289 percent by the end of 2004.

Table 7 Morocco's MFN Tariff Structure 2002-03			
	2002 Tariff		Uruguay Round
	Applied	Bound	
Bound tariff lines (as a percentage of all lines)	100.0	100.0	100.0
Tariff lines benefiting from duty-free entry (as a percentage of all lines)	0.1	0.1	0.1
Non- <i>ad valorem</i> duties (as a percentage of all lines)	0.2	0.0	0.0
Tariff quotas (as a percentage of all lines)	4.1	4.1	4.1
Non- <i>ad valorem</i> duties, without an <i>ad valorem</i> equivalent (as a percentage of all lines)	0.2	0.0	0.0
Simple arithmetic average	33.4	42.6	42.0
Agricultural products (HS 01-24)	53.2	60.4	56.5
Non-agricultural products (HS 25-97)	30.1	39.6	39.6
Agricultural products WTO	50.7	61.1	56.9
Non-agricultural products	30.7	39.6	39.6
Domestic tariff "peaks" (as a percentage of all lines)	1.3	1.7	1.7
International tariff "peaks" (as a percentage of all lines)	80.3	99.3	99.3
Overall standard deviation of rates applied	24.7	22.4	20.7
<i>Source:</i> WTO, Consolidated Tariff Schedule (CTS) database.			

Over 24 percent of the lines bound in 1994 were bound at rates of 100 percent or more. The highest rate (originally 380 percent) applied to certain live animals and meat. Morocco has retained the right to utilize the special safeguard clause provided in Article 5 of the WTO Agreement on Agriculture for 374 lines. The simple arithmetic average of the bound rates is 39.6 percent for non-agricultural products and 56.9 percent for agricultural products. Other duties and taxes on the majority of products have generally been bound at 15 percent, with the exception of those on certain goods bound at 7.5 percent.⁵²

The Value Added Tax applies to imported and locally-produced goods and services. For imports, VAT is levied on the customs value, plus any duties and taxes imposed, including domestic taxes. For locally-produced goods, it is calculated on the sales price. Four rates apply: 20 percent (the most common rate); 14 percent (with or without the right to deduction)⁵³; 10 percent (with the right to deduction)⁵⁴; and 7 percent

⁵² WTO, Schedule LXXXI – Morocco, 15 April 1994.

⁵³ The 14 per cent rate with the right to deduction applies to construction work; transport and catering services provided to employees of enterprises; light goods vehicles; and some food products (tea, fats, jam, fruit and fruit juice to be used for making jam, coffee, soluble coffee extracts). The 14 per cent rate without the right to deduction applies to services furnished by agents, brokers, and sellers of insurance.

(with or without the right to deduction)⁵⁵. There is a special VAT rate on alcoholic beverages (DH 100/hl); gold and platinum (DH 4/g); and silver (DH 0.05/g).⁵⁶

Domestic consumption taxes (TIC) apply (at the same rates) to certain goods, whether imported or locally produced, such as non-alcoholic beverages (DH 7 to 20/hl); beer (DH 550/hl); wine (DH 260 or 300/hl); ethyl alcohol and other alcohol to be used to receive ethyl alcohol applications (DH 200 to 700/hl of pure alcohol); manufactured tobacco (52 per cent)⁵⁷; energy products (for example, DH 7/ton on fuel); and bitumen (DH 900/ton).

To make this even more complicated there is a whole list of secondary taxes that apply to imports. This includes: a special tax on cement (DH 50/tonne); a tax on imported wood (12 percent); a verification and stamp tax on carpets (5 percent); proportional duties on tobacco imported by individuals authorized by the Tobacco Authority (65 percent plus additional taxes depending on the product); storage tax (2 to 10 percent depending on the length of storage at customs premises); fees for use of the computer system (DH 500 for each summary declaration, DH 100 for each import declaration, DH 50 for each export declaration, and DH 6 for each page of status reports or management statements); veterinary sanitary inspection tax (DH 0.02 to DH 20 per unit, although the latter may vary) or inspection of plants (DH 001 to DH 0.3/kg); administrative fees for verifying the manifest (DH 0.50 or DH 0.75/ton deadweight tonnage, with a maximum of DH 1,500 or DH 3,000 respectively; DH 0.20 to DH 0.5/tonne if the tonnage of the goods loaded is less than one quarter of the deadweight tonnage); and a tax on the marketing of dried beet pulp (DH 10/quintal net weight).

⁵⁴ The 10 per cent rate applies to food or beverages to be consumed on the spot, accommodation provided by hotels, rental of property for hotel use, motels, holiday villages, capital goods (excluding property and vehicles for transport) acquired by sugar companies, mills, and poultry farms, and the rental of property for tourist facilities.

⁵⁵ With the right to deduction, this rate applies to the sale and delivery of general consumer goods (water, electricity, edible pasta, household soap, pharmaceuticals, scholastic materials) and to banking, loan or exchange transactions, transactions in movable assets carried out by stockbrokers, payment of motorways operated by concessionaires, private vehicles (economy cars). Without the right to deduction, it applies to services provided by persons exercising certain professions (veterinary surgeons, lawyers, interpreters, solicitors, bailiffs).

⁵⁶ A number of important items are exempt from VAT, *inter alia*: staple goods; medical services and certain medical products and equipment; capital goods, equipment and medicines for the Moroccan Red Crescent; medicines needed to treat certain diseases (AIDS, diabetes, asthma, cardio-vascular disease); capital goods, equipment and tools for certain non-profit-making associations; gifts to the State, local authorities, public entities, and certain associations recognized as being of public utility; CD-Roms containing works of printing and composed cultural or educational works or books. Imports under customs regimes are also exempt, together with capital goods, equipment and tools for enterprises that are making large-scale investment (exceeding DH 200 million) in the context of their projects. Immovable capital goods are also exempt under the Investment Charter discussed below.

⁵⁷ The TIC on manufactured tobacco came into effect on 1 January 2003; since then, these goods have also been subject to 20 per cent VAT.

The major exemption and refund of duties is applicable to foreign investors. In addition to the benefits available to investors (for their imports) under the investment provisions,⁵⁸ other benefits are also granted under various customs regimes. These regimes (temporary entry for inward processing; in-bond warehousing or storage; temporary entry; temporary export for outward processing; temporary export; transit; free industrial warehouse; prior export; and drawback⁵⁹) allow the storage, processing, use and movement of goods with suspension or refund of all duties and taxes. Under the suspension regime, the customs authority requires security equivalent to the taxes and duties suspended in the form of transfers or bonds (from banks or in any other approved form).⁶⁰ Benefits are also granted to enterprises under agreements concluded with the State.⁶¹

Morocco also grants exemptions and suspension of duties and taxes under the Vienna Convention on diplomatic relations. Under other special provisions, a number of products usually subject to an import duty of 2.5 percent have been made exempt, enter duty free, or the import duties and taxes are suspended. These include vessels, seeds, some fisheries products, aircraft, certain publishing articles, fertilizers, some imports by the Al-Maghrib Bank, goods imported by Entraide Nationale, the Red Crescent, and the Hassan II Foundation (to combat cancer), as well as other bodies, certain agricultural products, raw hides and skins, products and equipment to be used in agriculture, passports, bank notes, and coins.

V.5 Tariff Liberalization, Fiscal Reform and Targeted Industrial Policy

One of the outcomes of tariff liberalization, apart from reduced tax revenue, is new limits on government's power to influence the location of firms and industries through a variety of tax incentives and/or holidays. In the case of Morocco, the government has managed to reduce border taxes, revise domestic taxes to compensate for the revenue losses, and at the same time induce greater foreign participation.

One notable example of this is in Morocco's energy sector. On March 16, 2000 Morocco modified its hydrocarbons law to offer foreign companies engaged in exploration and production a new and more attractive tax and investment regime. The key changes in the law included:

- a ten-year holiday on corporate income tax for production at new concessions;
- duty-free and VAT-free import/purchase of all equipment, materials, products and services necessary for reconnaissance, exploration and exploitation;

⁵⁸ See, Charter (Chapter II(6) and section (4)(i)).

⁵⁹ See, Charter (section (3)(vii)).

⁶⁰ See, Charter (section (3)(vii)).

⁶¹ This includes agreements between the State and enterprises such as Fiat, Maghreb Tube, SAMIR (petroleum), and SNEP (chemicals).

- exemption from business activity tax, urban tax (other than municipal tax), and taxes on non-developed urban areas;
- exemption of profits and dividends of shareholders from the tax on income from shares, capital rights, and similar revenues, and unrestricted transfer of such revenues outside Morocco by foreign entities; and
- a royalty-free initial production period, with royalty rates thereafter of 10 percent for oil (7 percent in deep water) and 5 percent for gas (3.5 percent in deep water).

Aside from these tax benefits, the new hydrocarbons law introduced streamlined procedures for obtaining operating licenses and exploration permits, granted year-round exploration and production rights, and provided for extended concessions of up to 35 years on commercially exploitable deposits.

Despite the historic shifts in Morocco's tax system aimed at eliminating tax distortions, it is striking that Morocco has maintained a number of discretionary practices where particular sectors of the economy, industries or other classifications of economic activity are singled out for special treatment. A clear example of this is agriculture: despite accounting for just under 20 percent of Moroccan GDP in recent years, the agriculture sector is exempted from paying direct taxes until 2020.⁶²

Apart from agriculture, there are separate investment codes providing tax and cash incentives for the industrial, tourism, mining, handicrafts, real estate, professional training and maritime sectors. There are additional incentives for small-business exporters and for investments which economize on energy and water or preserve the environment. Both the industry and tourism codes also attempt to promote regional balance by favoring activity outside the Casablanca area. The incentives provided under the industry code vary depending on whether a new venture or an expansion of an existing activity is being undertaken.

Aside from the formal investment codes, "conventions," or entirely *ad hoc* arrangements, may be negotiated with foreign firms offering substantial investment incentives. A number of such conventions have been negotiated over the years.

The investment codes themselves have changed over time and some of their benefits have been reduced as a measure of fiscal restraint.⁶³ Consideration has also been given to replacing the eight separate investment codes with a single centrally administered investment code.

⁶² Granted, the contribution of agriculture to direct taxes was never great. Under earlier tax provisions, about one-third of farmers were already exempt from direct taxation. Tax revenues from agriculture amounted to only 1 percent of revenues in the early 1980s, after which several years of drought and consequent crop failures led to the total exemption from direct taxes for the sector.

⁶³ There have been three principal investment codes since Morocco achieved independence: those of 1960, 1973 and 1983. The latter set of codes was modified in the Finance Laws of 1987 and 1988 by various restrictions on benefits, such as the periods for which tax holidays applied.

V.6 Foreign Investment In Morocco

A new Investment Code effective on January 1, 1996 replaced separate sectoral codes.⁶⁴

⁶⁴ Framework Law No. 18-95, Setting Forth the Investment Charter. Promulgated by Decree No. 1-95-213 of November 8, 1995, published in Official Gazette No. 4336 on December 6, 1995, and effective January 1, 1996.

Part I: Objectives of the Investment Charter

Article 1. In conformity with the provisions of the second paragraph of Article 45 of the Constitution, the present law has the aim of establishing the fundamental objectives of state policy for the 10 years to come on the question of the development and promotion of investments by improving the climate and the conditions of investment, revising the scope of tax incentives and taking measures to encourage investment.

Article 2. The measures provided by this charter will encourage investment through:

- The reduction of the tax charges pertaining to the acquisition of materials, tools, capital goods and land necessary for the realization of the investment;
- The reduction of tax rates (taux d'imposition) on income and profits;
- Establishment of a preferential fiscal regime in favor of regional development;
- The reinforcement of the guarantees granted to investors in improving the appeal system with regard to national and local taxation;
- The promotion of financial offshore centers, duty-free export zones (zones franches d'exportation) and the free industrial warehouse regime;
- A better sharing of the fiscal burden and a proper application of the rules of free competition, particularly by the revision of the scope of the application of tax exemptions granted.

These measures will equally:

- encourage exports;
- promote employment;
- reduce the cost of investment;
- reduce the cost of production;
- rationalize the consumption of energy and water;
- protect the environment.

Part II: Tax Measures

Customs Duties

Article 3. Customs duties including import duty and the import tax levy (prelevement fiscal a l'importation) are improved as follows:

- The import duty may not be less than 2.5 percent ad valorem;
- Capital goods, raw materials and tools as well as the components, spare parts and accessories considered necessary for the promotion and development of an investment will be subject only to import duty at a minimum rate of 2.5 percent ad valorem and a maximum rate of 10 percent ad valorem;
- Capital goods, raw materials, tools and components, spare parts and accessories as detailed above, will be exempt from the import tax levy taking into account the interests of the national economy.

Value Added Tax

Article 4. Capital goods, raw materials and tools which the taxpayer will list in a blocked account are exempted from VAT, both internal and at the point of importation. This gives the right to a deduction in conformity with the legislation relating to VAT.

The enterprises affected that have paid the tax at the moment of import or when purchasing the above-mentioned goods locally will benefit from reimbursement of the said tax.

Registration Duties

Article 5. The act of acquiring land to be used for the realization of an investment project is exempt from registration duties, with the exception of acts provided in subparagraph a. of the second paragraph below, with the reservation that the project be realized within a maximum of 24 months counting from the date of the act.

The following will be subject to a registration duty at the rate of 2.5 percent:

- a. acts of acquiring land to be used for the realization of land development and buildings;
- b. the first purchase of the buildings mentioned above by individuals or corporate bodies other than credit or insurance companies.

A registration duty with a maximum rate of 0.5 percent will be applied to company capital contributions on the occasion of the constitution of the company or the increasing of its capital.

Participation in National Solidarity

Article 6. The tax for participation in national solidarity (participation a la solidarite nationale) linked to the tax on companies is canceled.

However, profits and revenues completely exempted from company tax because of present or future legislation establishing measures for promoting investments are subject, instead and in place of the participation in national solidarity, to a contribution equal to 25 percent of the amount of the company tax which would normally have been payable in the absence of exemption.

Company Tax

Article 7. A. The rate of the company tax is reduced to 35 percent.

B. Enterprises exporting products or services benefit, for the amount of their export earnings, from special advantages which can go up to a complete exemption from company tax during a five-year period and a 50-percent reduction in said tax beyond this period.

However, concerning enterprises exporting services, the aforesaid exemptions and reductions will apply only to export earnings in foreign currency.

C. Enterprises which locate in prefectures or provinces with a level of economic activity requiring preferential tax treatment benefit from a 50- percent reduction in company tax during the first five years following the date of commencing operations, excluding permanent establishments (etablisements stables) of companies not having their headquarters in Morocco, those winning labor, supply or service contracts, credit establishments, insurance companies and real estate agencies.

D. Artisan enterprises, in which the production is essentially the result of manual labor, benefit from a 50-percent reduction in company tax during the first five years following the date of commencing operations, whatever their location.

General Revenue Tax

Article 8. A. There will be an adjustment of the rates of the general revenue tax schedule, the maximum

rate imposed not to exceed 41.5 percent.

B. Enterprises exporting products or services benefit, for the amount of their export earnings, from special advantages which can go up to a complete exemption from the general revenue tax during a five-year period and a 50- percent reduction in said tax beyond this period.

However, concerning enterprises exporting services, the aforesaid exemptions and reductions will apply only to export earnings in foreign currency.

C. Enterprises which locate in prefectures or provinces with a level of economic activity requiring preferential tax treatment benefit from a 50- percent reduction in general revenue tax during the first five years following the date of commencing operations, excluding permanent establishments (établissements stables) of companies not having their headquarters in Morocco, those winning labor, supply or service contracts, as well as real estate agencies.

D. Artisan enterprises, in which the production is essentially the result of manual labor, benefit from a 50-percent reduction in general revenue tax during the first five years following the date of commencing operations, whatever their location.

E. The benefit of the advantages provided above is dependent on the keeping of regular accounts according to the law in effect.

Degressive Amortization

(Amortissements Degressifs)

Article 9. Measures provided by legislation relating to company tax and general revenue tax concerning degressive amortization will be maintained for capital goods and during the period mentioned in the first article above.

The Moroccan Foreign Exchange Office, Central Bank, and Finance Ministry have recently issued regulations designed to lay the groundwork for a foreign exchange market. According to U.S. diplomats, the measures mark another step in Morocco's liberalization of its foreign exchange regime.

The new regulations, which take effect May 2, provide that:

- Banks will be allowed to hold foreign exchange, rather than turn it over to the Central Bank as is currently the case.
- The Central Bank will set limits on the total of foreign exchange that banks can hold as well as the amount they can hold in any individual currency.
- Banks can buy and sell foreign exchange among themselves and with their clients at any rate between the Central Bank buy and sell rates.
- Banks can offer their clients futures contracts for foreign exchange and other instruments designed to hedge foreign exchange risks.
- The futures contracts and other instruments must be tied to commercial transactions or foreign debts.
- The maximum term for futures contracts is 90 days for commercial transactions and one year for foreign debt.

Investment Provisions Regarding Company Tax And General Revenue Tax

Article 10. The following are considered as deductible charges--provisions made within the limit of 20 percent of tax benefit, before tax, by enterprises for carrying out an investment in capital equipment, raw materials and tools and this, within the limit of 30 percent of the said investment, excluding land, buildings other than those for professional use, and vehicles for tourism.

Those provisions established by mining enterprises for the restoration of mining deposits in conformity with the legislation relating to company tax or general revenue tax will continue to be regarded as deductible charges.

The provisions referred to above utilized in accordance with the object for which they were made are reported on a provisional account entitled "provisions of investment."

The amounts written under the account "provisions of investment" are utilized only

- by incorporation in capital;
- or in reducing deficits from prior years.

Tax on Real Estate Profits

Article 11. With a view to encouraging the construction of low cost housing, profits realized by individuals on the occasion of the first granting of the premises for habitation are exempted from the real estate profits tax with the reservation that the granting of the premises did not have a speculative character and that the accommodation had a social purpose.

Patent Tax

Article 12. The variable tax on a principal of the patent tax is revoked.

All individuals and corporate bodies conducting a professional, industrial or commercial activity in Morocco are exempted from the patent tax, and this for a period of five years counting from the commencement date of their activity.

Permanent establishments of companies and enterprises not having their headquarters in Morocco, those winning labor, supply or service contracts, credit establishments, insurance companies and real estate agencies are excluded from this exemption.

Urban Tax

Article 13. New buildings and additions to buildings as well as machinery forming an integral part of those establishments producing goods or services are exempted from urban tax, and this for a period of five years following that of their completion or of their installation.

Establishments, enterprises and agencies covered by the last paragraph of Article 12 above are excluded from this exemption, except for lease credit companies concerning the equipment they acquire for the account of their clients.

Local Tax Policy

Article 14. Concerning local tax policy, a simplification and harmonization of maximum rates and the ratable tax bases will be carried out, and their adaptation to the necessities of development and investment.

Part III: Financial, Land, Administrative and Other Measures

Article 15. These various measures have as objects:

- The liberty of transfer of earnings and capital for persons who make investments in foreign exchange;

- The creation of a land reserve intended for the realization of investment projects and the definition of the state's participation in the acquisition and equipment of lands necessary for investment;
- The orientation and assistance for investors in the realization of their projects, and this by the creation of a unified national agency;
- The simplification and reduction of administrative procedures relating to investments.

Regulation of Exchange

Article 16. Individuals or corporate bodies of foreign nationality, whether residents or not, as well as all Moroccan individuals established abroad, who carry out foreign exchange-funded investments in **Morocco**, will benefit for those investments with regard to the rules on foreign exchange, from a convertibility regime guaranteeing them complete freedom to:

- transfer after-tax profits without limitation of amount or duration;
- transfer the product of a conveyance or partial or total liquidation of the investment, including the gain in value.

Responsibility of the State for Certain Expenditures

Article 17. Enterprises whose investment programs are very important because of their size, the number of stable jobs to be created, the region in which they will be carried out, the technology of which they assure the transfer, or their contribution to environmental protection can conclude special contracts with the state according them, in addition to the advantages provided in the present framework law and in the texts for its application, a partial exemption from the following expenses:

- costs of purchasing the land necessary for carrying out the investment;
- costs of external infrastructure;
- costs of professional training.

The contracts mentioned above can include provisions stipulating that the method of settlement of all disputes relating to investment arising between the Moroccan state and the foreign investor will be in accordance with international agreements ratified by Morocco regarding international arbitration.

Investment Promotion Fund

Article 18. There is created a special appropriation account entitled "investment promotion fund" designed to be used for the operations relating to the responsibility of the state for the cost of advantages granted to investors under the framework of the investment contract regime provided in the preceding article as well as for necessary expenses for promoting investments.

Industrial Zones

Article 19. In the provinces or prefectures where the level of economic development justifies special assistance of the state, it will undertake part of the cost of the preparation of industrial zones which may be established there.

Article 20. Each industrial zone, where the size justifies it, will be provided with a management committee composed of users of the zone and public and private promoters, and will have the responsibility of supervising the management and the maintenance of the whole zone, for the supervision and maintenance of security inside the zone, as well as the proper application of the provisions of the conditions of contract between the promoter of the zone and the users.

While the sectoral codes provided for a number of benefits such as tax breaks and preferential financing, investors often had to go through lengthy bureaucratic procedures in order to actually get the benefits (some were virtually never granted). In general, the benefits provided under the new Code are more modest, but they are provided automatically.

The new Code applies equally to foreign and Moroccan investors, except for the foreign exchange provisions, which favor foreign investors. The Code calls for lower corporate income taxes, as well as cuts in import duties, import surtaxes, and value-added taxes on capital goods and equipment; the specific tax cuts have been included in the government budget.

The Code also calls for creation of an investment promotion fund, an investment promotion office, and (unspecified) measures to reduce the paperwork associated with

Welcome and Assistance of Investors

Article 21. There will be instituted an administrative body charged with welcoming, orienting, informing and assisting investors as well as for promoting investments.

Reduction of Administrative Procedures

Article 22. The administrative procedures involving the carrying out of investments are reduced and simplified. In all cases where approval of an administrative authorization for the granting of advantages provided by the present framework law proves to be necessary, this authorization is deemed to be granted when the administration has kept silent regarding the result of the request concerning it during a period of 60 days counting from the date the said request was filed.

Transitional Provisions

Article 23. The rights acquired by investors concerning the advantages from which they benefit because of laws instituting measures encouraging investments will be maintained, which advantages remain in effect until expiration of the term, and under the conditions, for which they have been granted.

Part IV: Agricultural Sector

Article 24. The provisions of the present framework law are not applicable to the agricultural sector of which the tax regime, notably that relating to investments, will be the subject of a special law.

Part V: Enforcement Measures

Article 25. The present framework law will be put into effect in conformity with the legislative and regulatory texts for its implementation.

The government will proceed to present the legislative and regulatory texts necessary for the realization of the objectives defined in the present framework law starting with the finance law for the year 1996.

investment. The government has repealed most aspects of the 1973 Moroccanization law limiting foreign ownership in a number of sectors, and foreign investment is now permitted in all sectors except agricultural land and a few sectors reserved for the state (e.g., phosphate mining).

A summary of the incentives includes:

- exemption from value-added tax on all new acquisitions of equipment; imports of such items are exempt from customs duties;
- exemption from business tax for up to 10 years;
- guaranteed transfer of dividends and repatriation of invested capital;
- state loans equal to 15 percent of the amount of the investment, free of interest for 10 years, and with a grace period of five years for repayment;
- corporate tax reduction of from 50 percent to total exemption during the first five years, depending on the location of the business; and
- exemption from stamp taxes and land registry fees, and reductions in capital registration taxes.

For investment projects of over \$7 million, further benefits may be granted through special agreements negotiated with the government.

The impact of Morocco's efforts to attract foreign investment can be seen in Table 8, which presents FDI trends in Morocco from 1994, when it totaled \$213.6 million (or 0.7 percent of GDP), to 2000, when it was \$245.8 million (or 0.8 percent of GDP). In between those two years, however, FDI surged to \$800.9 million (2.5 percent of GDP) in 1997, fell to \$384.6 million (1.0 percent of GDP) in 1998, and jumped again to \$945.6 million (2.7 percent of GDP) in 1999.

Table 8
Foreign Direct Investment in Morocco

Total FDI	\$ millions	% GDP
1994	213.6	0.7%
1995	211.1	0.7%
1996	235.0	0.7%
1997	800.9	2.5%
1998	384.6	1.0%
1999	945.6	2.7%
2000	245.8	0.8%

Table 9 below shows private foreign investment inflows, including portfolio investment and short-term financing for current account expenditures, from 1997 through 2000, by country of origin and by sector.

Table 9
Private Foreign Investments Inflows Into Morocco (US Millions)

	1997	1998	1999	2000
By Country of Origin				
United States	351.2	66.8	112.8	35.4
France	137.7	162.4	363.3	186.6
Spain	50.1	48.8	211.6	56.7
Germany	61.8	3.7	186.0	18.5
Japan	81.0	--	--	1.1
United Kingdom	32.2	20.6	21.4	49.3
South Korea	29.4	37.2	--	2.7
Netherlands	25.7	27.2	346.4	229.3
Libya	24.3	8.4	-	-
Benelux	8.5	-	12.9	25.9
Saudi Arabia	7.9	8.5	10.9	13.5
Switzerland	7.9	29.1	30.0	23.8
U.A.E.	3.9	6.2	-	6.1
Ireland	-	8.5	-	-
Portugal	-	12.9	518.1	79.7
International Finance Corp.	-	-	-	408.5
Others	17.9	5.8	50.7	38.2
Total	1,258.s	565.8	1,886.0	1,175.3
By Sector				
Industry	160.2	213.1	387.3	106.8
Fishing	0.6	4.5	0.4	1.3
Tourism	48.4	17.4	31.0	12.1
Services	26.1	24.6	36.4	29.0
Transport	1.6	0.9	3.5	1.6
Public works	22.0	2.9	13.4	7.9
Banking	214.5	120.7	220.8	67.5
Real estate	32.7	55.5	48.6	55.0
Telecommunications	2.6	1.6	1,042.1	752.6
Other	749.4	124.9	103.2	141.5
Total	1,258.g	565.8	1,886.0	1,175.3

V.7 Fiscal Revenue

A close look at the macro aggregates for Morocco, presented in Table 10, shows that the Moroccan fiscal deficit has been running at about 6 percent of GDP since 2001, largely as a result of both a reduction in tariff revenue and an erosion of the domestic tax base. However, the budget deficit did not seriously affect macroeconomic stability because it was financed largely by proceeds from privatizations, not to mention the nominal anchor provided by the fixed exchange rate.

Tax reform was one of the important structural reforms which contributed to the restoration of macroeconomic stability in Morocco up until 2001, when an Association Agreement with the EU led to further reductions in tariff revenues. For direct taxes, the most important developments were in the area of profits taxation. In 1973, as part of its incentive policy, the government introduced a set of sectoral investment codes providing for ten-year partial or total abatements of the profits tax (with rates at 40 percent up to 200,000 *dirham* and 48 percent thereafter) for new industrial firms located outside Casablanca. Similarly, the 1973 export code granted all firms, regardless of location and age, a ten-year abatement of the profits tax prorated to the proportion of export sales in total turnover.

The impact of these exemptions was attenuated to some extent by the introduction in 1980 of the national solidarity tax—Participation a la Solidarite Nationale (PSN)—equal to 10 percent of the profits tax liability (i.e., the tax that is due, but forgiven by the investment code). In addition, all firms had to constitute an investment reserve of between 5 and 8 percent of their taxable profits. Thus, the cumulative effective rate of profits taxation was equal to about 60 percent for a firm not eligible for any benefits under the investment or export codes. Yet this rate could go as low as 10 to 13 percent for a firm completely exempted from the profits tax under one of the codes.

Beginning in 1983, the investment and export codes were revised. Profit tax abatements and exemptions were reduced in scope, except for export-related profits. Incentives were increased for the use of labor-intensive technologies, via the introduction of employment subsidies, the elimination of accelerated depreciation, and the introduction of import duty exemptions on imported capital goods.

Even prior to the 1983 crisis, the Moroccan Government had requested IMF technical assistance in reforming its tax structure. The 1984 *Loi Cadre* (framework law) underscored the government's commitment to undertaking comprehensive tax reform, and subsequent reform included introduction of new taxes, base broadening and simplification of rate structures for existing taxes, tax rate reduction and improved enforcement.

Several major new taxes were introduced subsequent to the passage of the *Loi Cadre*. A value-added tax was introduced in 1986 to replace the old cascading turnover taxes on goods and services; a new tax on corporate profits was also introduced in 1986; and a new personal income tax in 1989. The latter tax was intended to be a global income tax. It replaced “schedular” income taxes where income was taxed at different tax rates

according to its source (e.g., rents, wages, etc). A petroleum levy was also introduced in 1986 to capture the windfall gains from falling international oil prices. Finally, a 12.5 percent uniform import tax—the *Prelevement Fiscal à l'Importation* (PFI)—was also introduced at the beginning of 1988 to replace the Special Import Tax and the relatively distortionary stamp duty.

Statutory tax rates for the various tax bases have been successively lowered since the *Loi Cadre* was passed. Tax rates had previously risen substantially during the period of rapid expenditure growth leading up to the fiscal crisis of 1983. From 1970 through the early 1980s, business profit tax rates rose from 43 to 56 percent; average import duties (including surtaxes) rose from 15 to 28 percent; and sales taxes on goods rose from 15 to 19 percent, and on services from 7 to 12 percent. By way of comparison, the 1994 Finance Law was the latest in a succession of annual Finance Laws to reduce corporate tax rates, in this case to 39.6 percent (including surtax) as compared to 49.5 percent (including surtax) when the tax was introduced in 1986. The highest marginal personal income tax rate in the 1994 Finance Law was 47 percent; whereas the highest marginal tax rate before reform was 63 percent.

Table 10 Decomposition of Morocco's National Product (In percent of GDP)				
	1988	1999	200	2001
Gross National Product	104.2	103.8	104.8	108.6
National Consumption	82.4	81.2	82.6	80.9
--Non-government	64.4	62.0	63.5	61.4
--Government	18.0	19.1	19.1	19.5
Gross National savings	21.8	22.6	22.2	27.7
--Non-government	20.0	20.9	21.5	26.8
--Government	1.7	1.7	0.7	0.9
Gross Investment	22.2	23.1	23.5	22.8
--Non-government	19.4	20.2	20.5	19.9
--Government	2.7	2.9	3.0	2.9
National savings-investment gap	-0.4	-0.5	-1.4	4.9
--Non-government	0.6	0.7	1.0	6.9
--Government	-1.0	-1.2	-2.4	-2.0
Capital transfers	0.0	0.0	0.0	0.0
External current account (national accounts data)	-0.4	-0.5	-1.3	4.5
Exports of goods & non-factor services	21.7	23.6	25.2	25.4
Imports of goods & non-factor services	-26.1	-27.7	-31.2	-28.8
Source: International Monetary Fund, Morocco Statistical Appendix, Country Report No.03/163, June 2003. Table 4.				

Following is a brief overview of changes and trends in each of the major categories of tax in the Moroccan tax system.

V.7.1 Taxes on Goods and Services

Historically, the Moroccan tax system was dominated by indirect taxes that did not vary with the circumstances of the individual. Table 11 presents a breakdown of Morocco's

tax revenue as a share of GDP and as a percent of total revenue. The personal income tax component included taxes on interest income, on dividends, and on capital gains in real estate, which were essentially flat taxes whose rates did not vary with the income of the individual. By way of contrast, the wage and salary component of personal income tax—which did, of course, vary with the circumstances of the individual—was only 12.1 percent of total tax revenue in 1992.

The tax on business income and profits during the same period only accounted for about 14 percent of tax revenue, while other categories of indirect taxes such as those on international trade and the VAT accounted for much larger shares of tax revenue. Stamp taxes and taxes for business registration accounted for about 5 percent of tax revenue. The latter levies were clearly more than just a user fee for registering a business and were employed as a general revenue-raising measure. The relief from these taxes offered as an incentive in the various investment codes was therefore not inconsequential.

In recent years, proceeds from sales taxes have increased significantly as a result of the introduction of the VAT. For Morocco proceeds from the VAT equal 6.1 percent of GDP. This is in line with the OECD average of 6.2 percent of GDP.

V.7.2 Taxes on Personal Income

Personal income earned by Moroccan individuals is taxed progressively. Since the introduction of the new personal income tax in 1990, Morocco's highest marginal tax rate has been reduced in two stages from 52 percent to 46 percent based on the 1994 Finance Law, and the taxable floor for annual income has been successively raised from 12,000DH to 18,000DH in 1994. These are obviously real reductions, being much greater than inflation over the same period. For personal income earned from global sources the highest marginal tax bracket is now 36 percent of taxable income for income above US\$6,000. Dividend and interest income earned by individuals is taxed separately from other personal income. Dividends are taxed at a flat 15 percent rate and are withheld at the corporate level. The taxation of interest income is slightly more complex. Interest paid to unidentified lenders (e.g., holders of corporate bonds) is subject to a 30 percent tax which is withheld by the borrower. Where the lender is readily identifiable (as for bank deposits), interest is taxed at a 20 percent rate, which is withheld by the borrower. This withholding tax is then credited against total personal income tax liabilities. If the credit is greater than the total personal tax liability, however, the government does not refund the difference.

Over the past decade, with strengthening of the tax administration and the expansion of private sector activity in Morocco, individual income tax has expanded to 2.7 percent of GDP, which compares favorably with most middle-income countries.

V.7.3 Corporate Income Taxes

The initial tax rate set for the corporate profits tax in 1986 was 45 percent. In the period from 1990 to 1994, this statutory corporate tax rate was reduced in three separate annual Finance Laws to 36 percent. The national solidarity tax—originally imposed to finance the conflict in the Western Sahara—adds a 10 percent surcharge to this rate. In effect, the

cumulative corporate income tax rate applicable to corporate profits is, therefore, 39.6 percent.

Corporate income tax in Morocco is currently 4.2 percent of GDP and is quite respectable, as compared to the average for middle-income and OECD countries where the corporate income tax accounts for about 2.6 percent of GDP. The strong performance on corporate taxation in Morocco reflects both the relative strength of the private sector and improvements in the structure and administration of the corporate tax itself.

V.7.4 Minimum Tax

Aside from the corporate income tax rate applied to corporate profits, Morocco previously levied a 0.5 percent turnover (gross revenue) tax, which operated as a minimum tax creditable against the corporate income tax. This tax was replaced by the VAT, which currently represents about 6.1 percent of GDP.

V.7.5 Cement Tax

In 2003, the government further attempted to diversify its revenue base by raising extra funds for low-cost housing projects as a result of doubling a special tax levied on cement sales to DH100 per ton. Half of the total proceeds from the tax now go to the Solidarity Fund against Inadequate Housing. Cement sales are estimated at 8.5m tons/year.

V.7.6 Property Tax

Municipal taxes on the rental value of business plant and equipment are levied at a minimum rate of 30 percent for firms located on the periphery of urban areas and a rate of 35 percent for firms located in urban areas. Because of its location-specific features, this tax is commonly used to create development zone incentives.

Table 11
Composition of Central Government Tax Revenue
By Main Categories

	1998/99	1999/00	2000	2001
In percent of GDP				
Total Revenue	27.2	27.2	26.6	24.9
Tax Revenue	24.5	24.9	24.4	22.7
Corporate taxes	2.8	3.0	2.9	3.1
Individual income tax	3.1	3.4	3.4	4.0
Import Duties and taxes	4.7	4.9	4.8	3.7
VAT	5.5	6.1	6.1	6.0
- domestic	2.4	2.8	2.6	2.7
- imports	3.2	3.4	3.5	3.3
Excises	4.4	4.6	4.3	4.1
Registration and stamp taxes	1.1	1.2	1.2	1.2
Other taxes	2.7	1.8	1.7	0.6
Nontax revenue	2.7	2.3	2.1	2.2
In percent of total Revenue				
Total Revenue	100.0	100.0	100.0	100.0
Tax Revenue	89.9	91.5	92.0	91.2
Corporate taxes	10.1	10.9	10.9	12.3
Individual income tax	11.5	12.5	12.9	16.6
Import Duties and taxes	17.4	17.9	17.9	14.7
VAT	20.4	22.5	23.1	24.2
- domestic	8.8	10.1	9.9	11.0
- imports	11.6	12.3	13.2	13.2
Excises	16.3	16.8	16.4	16.6
Registration and stamp taxes	4.1	4.4	4.5	4.8
Other taxes	10.0	6.4	6.4	2.5
Nontax revenue	10.1	8.5	8.0	8.8

Source: International Monetary Fund, Morocco Statistical Appendix, Country Report No.03/163, June 2003.
Table 14.

VI. TARIFF LIBERALIZATION & TAX REFORM IN JAMAICA

The Jamaican economy started on a path of sustained economic growth in the late 1970s, when it chose a new export-oriented economic strategy. This shift was in large part motivated by falling output, increasing unemployment, and large internal and external imbalances that began early in the same decade and persisted through the first half of the 1980s. The crisis came to a head when the country's external debt grew to over 100 percent of GDP. In 1985, Jamaica introduced a program of structural reform and liberalization, particularly to restore its external position. The program provided for the relaxation of price controls, improved financial intermediation, and a reduction of the public sector deficit.⁶⁵

During the 1990s a World Bank supported structural adjustment loan along with a 1992 Paris Club multi-year debt rescheduling arrangement helped turn Jamaica into a more market-oriented economy, in which domestic price regulation was eliminated, and import duties were reduced.⁶⁶ An overview of the Jamaican economy is provided in Table 12.

Table 12 Major Economic Indicators - Jamaica			
	1995	1996	1997
GDP per capita (US\$)	1,661.0	2,280.7	2,430.9 ^a
Exports of goods to GDP (%)	34.6	24.0	22.4
Imports of goods to GDP (%)	58.4	43.4	42.9
Share in GDP at factor cost (%)			
Agriculture, forestry and fishing	8.0	8.4	7.4
Manufacturing	18.4	18.1	18.1
Construction	9.4	9.1	8.9
Electricity, gas and water	4.7	5.0	5.2
Mining and quarrying	8.6	9.4	9.9
Services	55.6	55.0	55.8
Transport and communications	12.3	13.7	14.9
Financial services and insurance	15.5	15.0	12.2
Restaurants and hotels	2.2	2.3	2.4
Employment by economic activity (%)			
Agriculture	23.2	22.6	21.8
Manufacturing	10.9	10.4	9.4
Mining	0.7	0.7	0.6
Services	57.2	57.7	59.0
Construction	7.9	8.5	8.4
Merchandise exports f.o.b. (US\$ million)	1,436.8	1,386.9	1,387.6
Merchandise imports f.o.b. (US\$ million)	2,426.4	2,503.2	2,658.6
Non-factor services (net) (US\$ million)	189.5	340.6	299.3
Transfers (net) (US\$ million)	607.8	636.4	641.7
Exports of goods and non-factor services/GDP (%)	75.8	55.8	41.9 ^a
Imports of goods and non-factor services/GDP (%)	95.1	69.3	-57.6
Source: The Statistical Institute of Jamaica; Planning Institute of Jamaica, <i>Economic and Social Survey, Jamaica</i> , 1995, 1996 and 1997; Bank of Jamaica; and International Monetary Fund, <i>International Financial Statistics</i> (various issues).			

⁶⁵ See World Bank, Country Report: Jamaica (1999)

⁶⁶ Between 1978 and 1995, 12 IMF programs and eight World Bank structural adjustment loans were agreed. Jamaica completed its last IMF structural adjustment program in March 1996.

The Jamaican economy is structurally very dependent on its trade account. Foreign exchange receipts rely heavily on tourism, the main earner since 1983, and on exports of bauxite/alumina and clothing. These three sectors alone account for 75 percent of Jamaica's foreign exchange earnings. On the import side, Jamaica is heavily dependent on imported oil. Jamaica's single major trade partner is the United States, by virtue of NAFTA and the Caribbean Basin Initiative (CBI).

In recent years, rising unit labor costs in excess of those in partner countries have affect Jamaica's competitiveness in the region.⁶⁷ In particular, exports to the United States of clothing, the largest earner of foreign exchange among exports of manufactures, have been progressively losing market share due to the lower wages found in Mexico.

In 1996, the Jamaican Government implemented a National Industrial Policy (NIP) designed to allow it to adjust to globalization pressures. In its first stage, in 1996, the NIP focused on the need to reduce inflation and stabilize the exchange rate. The goal for inflation was set at between 11 and 15 percent. To achieve this, it was considered necessary to adopt policies which would have a restrictive effect on aggregate demand and costs. Among these measures were:

1. establishing a range of fluctuation of 11 to 15 percent for broad money (M3);
2. achieving a public sector surplus of 3% of GDP; and
3. obtaining a social consensus among labor, capital and the State to ensure the consistency of income and macroeconomic policies.

As is clear from the performance data presented in Table 13, although the inflation goal was almost met and monetary policy was very restrictive in 1996, the public sector accounts showed a deficit of 12.2 percent of GDP. The 1997 goals included a further reduction in inflation to between 8 and 9 percent (the actual inflation rate was 9.2 percent), a 2-3% increase in output (estimated to have declined by 1%), and a fiscal deficit equivalent to 1.7 percent of GDP.

Since the mid-1980s, the Government has also aimed to consolidate public finances. A tight program of expenditure reduction, reform of the public administration, and improvement in tax collection led to a successful reduction of the deficit, from an average of 17 percent of GDP from 1980 to 1984, to 3.1 percent of GDP in 1989.⁶⁸ Central government revenue remained stable at around 32 percent of GDP during this period, but expenditures fell from an average of 38 percent of GDP in the 1980s to 30 percent of GDP in 1989 and to 27 percent of GDP in 1990.

Between 1990 and 1995, Jamaica entered a period of fiscal surplus, partly due to a reduction in current expenditures, particularly on public sector wages and salaries. In 1992, the personal income tax rate was lowered to 25 percent; personal taxes are

⁶⁷ See Pelzman and Schoepfle (1988) and (1992).

⁶⁸The fiscal year runs from 1 April to 31 March.

presently subject to a pay-as-you-earn assessment. In 1993, the general consumption tax (GCT), introduced in 1991, was increased from 10 percent to 12.5 percent for most products, and again in 1995 to 15 percent. Customs duties were reduced in 1991, when the Common External Tariff was introduced. Duties were reduced further in 1993 and 1995, through revisions of the Customs Tariff Resolution, and again in 1996. In addition, in 1996 a new tax system was introduced, requiring all taxpayers in Jamaica to use a designated taxpayer registration number (TRN) for all tax-related purposes.

Table 13 Jamaica's Economic Performance After the 1996 NIP							
	1991	1992	1993	1994	1995	1996	1997 ^e
Percentage change							
Real GDP at constant prices	0.8	1.5	1.4	1.1	0.5	-1.8	-2.4
Private consumption	0.4	-5.9	2.9	1.0	3.6	-1.2	..
Gross domestic investment	6.0	-5.0	-1.0	1.3	0.3	-4.6	..
Exports of goods and services	6.1	5.0	4.3	3.3	7.2	5.0	..
Imports of goods and services	7.3	-8.1	5.0	3.8	10.8	4.0	..
Monetary survey							
Reserve money (M1)	95.3	49.8	40.0	13.7	41.9	22.7	8.8
Broad money (M2)	54.6	59.3	39.9	36.6	38.5	14.5	13.4
Inflation rate (CPI)	80.2	40.2	30.1	26.9	25.5	15.8	9.2
Interest rate							
Deposit rate ^a	18.5	19.5	18.2	18.8	17.8	18.0	13.0
Lending rate ^b	40.1	46.4	61.3	56.1	55.3	55.2	44.2
Government finance^c							
Government revenue	30.4	30.9	32.7	30.1	31.7	31.2	30.2
(share of GDP)							
Government expenditure	26.0	26.7	29.2	26.5	29.9	38.4	39.7
Government surplus/deficit(-)	4.4	4.2	3.5	3.6	1.8	-7.2	-9.5
Public debt/GDP	..	121.2	135.5	115.5	118.5	94.5	95.0
Memorandum:							
Gross Domestic Investment/GDP	19.8	19.3	20.3	22.0	25.0	27.3	26.4 ^d
Gross Domestic Savings/GDP	19.1	20.3	12.8	18.7	13.6	23.8	27.5 ^d
Source: Bank of Jamaica; International Monetary Fund, <i>International Financial Statistics</i> (various issues); and World Bank (1997), <i>Jamaica Country Overview</i> .							

The fiscal situation deteriorated in 1996, partly due to increased government subsidies to a number of non-performing institutions, the effect of higher interest rates and an increase in the wage and salary bill, which contributed to a decline of 5 percentage points of GDP in the central government surplus.⁶⁹ Adding to the fiscal constraints, sales proceeds from privatization fell due to the cancellation of the sale of the government-owned power company (JPSCO) in October 1996. Similarly, the Government could not finalize the privatization of the state-owned refinery

⁶⁹ The surplus was cut to about 5.5% of GDP IMF, *Press Information Notice*, 2 October 1997.

(PETROJAM). Overall, the fiscal deficit stood at 7.2% of GDP in FY1996/97. Income tax contributed the largest share of government revenue, accounting for about one-third of the total, followed by production and consumption taxes (slightly over one-fourth of total revenue). Customs duties accounted for only 10 percent of total revenue.

Even with the 1997 outsourcing the traditional Central Government role of “lender of last resort,” the deficit increased to near 9.5 percent of GDP in FY1997/98.⁷⁰ The increase in the deficit was due to lower-than-expected revenue, caused by a weakness of economic activity, as well as to increases in interest payments on existing debt and the wage bill.

Public debt, which rose steeply in the 1980s⁷¹ and continued to be very high in the early 1990s, declined in the mid-1990s, from 135.5 percent of GDP in 1993 to 94.5 percent in 1996. Domestic debt increased substantially as a result of the reliance on local registered stocks to cover financial needs and to sterilize capital inflows.⁷² Domestic debt grew from 24.6 percent of GDP in 1992 to 46 percent in 1997, while external debt fell from 111.6 percent of GDP in 1992 to 53.5 percent in 1997. External debt service fell accordingly, from 27.1 percent of exports of goods and services in 1992 to 19.7 percent in 1997. However, due to the increase in domestic debt, and to high domestic interest rates, total debt servicing remained high, accounting for as much as 24.8 percent of GDP in FY1997/98.⁷³

VI.1 Balance Of Payments

Jamaica as a small island economy has a permanent structural trade deficit. It has a small manufacturing base, two export commodities—apparel and alumina/bauxite, which account for roughly 50 percent of total merchandise exports—and a strong dependence on imported raw materials, oil and capital goods. Moreover, some of its fastest growing export sectors have a large import content. Imports of goods and services represent nearly 60 percent of GDP, heavily outweighing exports. Jamaica’s Balance of Trade is outlined in Table 14. Imports of goods are more than twice the value of exports. Imports expanded by 6.5 percent in 1997, while exports stagnated⁷⁴; export weakness was mainly

⁷⁰ Jamaica creation a quasi-governmental rescue unit called FINSAC in 1997 in order to finance directly the rescue of troubled financial institutions. It is estimated that financial sector assistance, provided by FINSAC reached J\$74 billion, or some 33.5% of GDP, during that year.

⁷¹ It was over 200% of GDP in 1986.

⁷² According to the Bank of Jamaica, local registered stocks (LRSs), which accounted for about three quarters of domestic debt, represented 27.5% of GDP in 1996, up from 16.2% in 1992.

⁷³ The prepayment of a portion of domestic debt caused a 25.8% increase in amortization payments and a 5.9% increase in total debt servicing during the first quarter (April-June) of FY1997/98, with respect to the same period the previous year.

⁷⁴ In 1995, both imports and exports grew at high rates: 29.7% and 17.8%, respectively. In 1996, imports expanded by 3%, while exports contracted by 3.5%. The 1996 slow-down of imports was partly a result of contraction in the manufacturing sector, which caused a 1.4% drop in imports of raw materials, while

due to a further decline in the clothing sector, triggered by diminishing competitiveness, and by the drought, which affected agricultural exports. During the 1990s, imports grew more rapidly than exports. Between 1990 and 1996, imports expanded by around 50 percent in value terms, while exports increased by around 20 percent. The real appreciation of the Jamaican dollar was a contributing factor; causing a loss of competitiveness for exports in favour of imports. As a result, the trade deficit increased steadily during the 1990s.

Table 14 Jamaica's Composition of Trade (Millions US Dollars)							
	1991	1992	1993	1994	1995	1996	1997 ^a
Merchandise trade balance	-424.3	-475.6	-804.7	-648.7	-989.6	-1,116.3	-1,271.0
Exports f.o.b.	1,150.7	1,053.6	1,075.4	1,219.5	1,436.8	1,386.9	1,387.6
Imports f.o.b.	1,575.0	1,529.2	1,880.1	1,871.5	2,426.4	2,503.2	2,658.6
Services (net)	-84.6	146.7	233.6	191.7	189.5	340.6	299.3
Foreign travel	710.4	794.2	878.4	854.0	939.6	952.4	961.7
Investment income	-478.9	-348.2	-240.2	-284.3	-296.9	-177.5	-196.2
Other private services	-315.8	-299.3	-404.6	-378.0	-453.2	-434.3	-466.2
Balance on goods and services	-508.6	-328.9	-571.1	-457.0	-800.1	-775.9	-971.7
Transfers (net)	252.8	339.8	376.9	475.3	607.8	636.4	641.7
Private	153.3	248.2	306.4	447.2	550.1	583.8	606.3
Official	99.5	91.6	70.5	28.1	57.7	52.6	35.4
Current account balance	-255.8	10.9	-194.2	18.3	-192.3	-139.3	-330.0
Direct investment, net	133.0	142.0	78.0	117.0	167.0
Capital account balance	150.6	326.3	307.6	319.2	212.0	410.5	178.0
External debt	4,459.2	3,678.0	3,687.2	3,651.8	3,451.9	3,231.9	3,277.7
Foreign exchange reserves (net)	-356.3	-50.7	70.8	408.3	418.6	694.9	540.5
External debt/GDP (%)	...	111.5	123.4	94.2	83.1	56.0	52.9
Percentage of exports of goods and services							
Debt service ratio	...	27.1	22.6	20.0	18.8	18.0	19.7
J\$ per US\$ (period average)							
Exchange rate	12.85	23.01	25.68	33.35	35.54	37.02	35.58
Nominal effective exchange rate (index; 1990=100)		42.0	33.3	33.9	28.5	33.2	...
Real effective exchange rate (index; 990=100)		89.9	80.9	91.5	96.5	119.9	...
Source: International Monetary Fund, <i>International Financial Statistics</i> (various issues).							

Jamaica's current account has been in deficit for most of the 1980s and 1990s. The program of structural reform, intensified in the mid-1980s, virtually eliminated Jamaica's current account deficit by 1994, from 18 percent of GDP in 1985. In 1995, the deficit expanded again, in part a reflection of short-term expansionary monetary and fiscal policies. After a small improvement in 1996, the current account deficit widened again in

capital goods and consumer goods expanded by 10.1% and 6.7%, respectively. Export figures were affected by a 10% decline in apparel exports, and by lower aluminum prices.

1997, reaching US\$330.7 million, or 5.3 percent of GDP, mainly due to a deterioration in the trade balance caused by higher imports and stagnating exports.

In the 1980s, most capital flows into Jamaica were borrowings, either bilateral or from multilateral agencies. Direct investment flows and commercial bank borrowings were not significant. This changed in the 1990s, when direct investment flows increased. Private capital inflows, attracted by high real returns (high interest rates plus a real currency appreciation), exceeded US\$300 million a year from 1992–95, picking up further to US\$622.7 million in 1996. The capital account surplus thus remained high, peaking at US\$410.7 million in 1996, leading to a substantial accumulation of net foreign exchange reserves, which stood at the equivalent of three months of imports at end-1996. In 1997, however, the capital account surplus recorded a sharp reduction (to US\$178.0 million), triggered by a decline in net private capital flows caused by a shift in portfolio demand, from domestic toward foreign currency deposits. As a consequence, net foreign exchange reserves fell. In response to a signal by the Central Bank that it would not let interest rates fall substantially, reserves once again started to increase, along with capital inflows, in December 1997. By the end of 1997, Jamaica's foreign exchange reserves represented two and a half months of imports.

VI.2 Jamaica's Tariff Policy and Structure⁷⁵

Jamaica began a process of trade liberalization in 1986, when it abandoned its import-substitution strategy. Import duties have been lowered since then from rates as high as 200 percent to the current maximum rate of 30 percent for industrial products and 40 percent for agricultural goods. Jamaica adopted the CARICOM Common External Tariff (CET) in 1991, and reduced tariff levels to a ceiling of 20 percent for industrial products in the late 1990s. As a result of the liberalization measures, Jamaica now maintains few trade restrictions and has a relatively low average tariff of 10.9 percent on MFN imports.⁷⁶ Tariffs and other price-based measures are currently the preferred trade policy instrument and Jamaica does not use other measures, such as prior import deposits, minimum import or export prices, variable import levies, import surveillance, local-content requirements, or restrictions for balance-of-payments purposes. Although import licenses are still needed for some products, licensing is not used as an instrument for the protection of local production. Recourse to the use of import surcharges (additional stamp duties), added to the customs duty, has replaced the use of quotas or other quantitative restrictions. In addition, Jamaica has lifted all previously imposed foreign exchange controls.

In terms of formal impediments to trade, Jamaica does not represent an exceptionally restrictive market. Imports under US\$1,000 for home consumption do not require a formal import entry certificate and may be cleared directly by the importer.

⁷⁵ The material presented in this section is based on both the Report of the Government to the WTO, WT/TPR/G/42, 29 September, 1998 and Report of the Secretariat, WT/TPR/S/42, 29 September, 1998.

⁷⁶ This excludes other duties levied on imports, such as additional stamp duties.

Imports over US\$1,000 and up to US\$5,000 require a formal entry certificate but may also be cleared directly by the importer. If the value of imports exceeds US\$5,000 they must be cleared by a customs broker. Perishable goods or urgent consignments may be granted permission to be cleared without a formal entry certificate, prior cash deposit, or bank guarantee to cover any applicable duty.⁷⁷ Goods imported for warehousing must have a formal entry certificate, irrespective of their value. A bond covering the corresponding customs duties must be executed; duties must be paid when the goods leave the warehouse.

Jamaica has applied the CARICOM Common External Tariff since February 1991, whose schedule is based on the Harmonized Commodity Description and Coding System. The Jamaica Customs Tariff as applied in early 1998 is in accordance with the Customs Tariff (Revision) (Amendment) Resolution of 1995, and comprises 4,081 tariff lines at the seven-digit level.⁷⁸ The tariff has eight tiers, with rates of 0, 5, 10, 15, 20, 25 and 30 percent for industrial goods, and an additional rate of 40 percent that applies only to agricultural products. Tariff lines are categorized according to value-added and substitutability for domestic products.

As part of its undertakings in the Uruguay Round, Jamaica bound its tariffs on imports of industrial products at a uniform rate of 50 percent, and bound virtually all other duties and charges at 15 percent. The simple average MFN tariff in 1997 was 10.9 percent. Table 15 presents the main tariffs as they are applied in Jamaica.

Table 15				
Main Features of Jamaica's Tariff Structure				
	Simple average %	Range %	Standard deviation ^a	Coefficient of variation ^a
All tariff lines	10.9	0-40	13.5	124.0
By sector ^b				
Agriculture and fisheries	20.1	0-40	19.6	97.4
Mining	4.3	0-30	9.5	222.1
Industry	10.3	0-40	12.7	123.0
By degree of processing				
Primary products	15.6	0-40	18.3	116.8
Semi-processed products	3.0	0-40	7.7	252.1
Finished goods	12.3	0-40	12.7	103.3
Source: WTO Secretariat.				

The average MFN tariff for agricultural products (HS Chapters 1 to 24) was 20.2 percent, and 8.4 percent for industrial products. Duty-free treatment is accorded to 55.4 percent of tariff lines for MFN imports. In the case of industrial products, 59 percent of tariff

⁷⁷ Customs formalities for these goods must be finalized within 72 hours of their release.

⁷⁸ The duty rates contained in this schedule are in accordance with Phase II of the CET calendar of reductions. A modification was introduced to the schedule in 1997, when duties on all non-competing inputs were reduced to zero.

lines are duty free, 31 percent are subject to MFN tariffs of 20, 25 or 30 percent ⁷⁹, while 10 percent are subject to rates ranging between 5 and 15 percent. Almost one-third of tariff lines on agricultural products are subject to a rate of 40 percent; another third is subject to rates ranging between 5 and 30 percent.

Jamaica's current tariff structure is designed to provide positive effective protection to competing final goods, with imports of non-competing inputs entering into Jamaica duty-free, as well as to raise revenue. From the data in Table 16, one notes that imports of semi-processed products are subject to an average tariff rate of 3 percent, while imports of fully processed products pay an average 12.3 percent tariff. Although raw materials are subject to an even higher average tariff of 15.6 percent, this is due to the high (40 percent) rate applied on some agricultural products destined for final consumption and competing with local production.

Table 16 Applied and bound MFN tariffs by stage of processing and degree of substitutability, 1997 (Percentage)			
	Average	Ranges	Bound rate
Simple average tariff ^a	10.9		67.4 ^b
Agricultural products (HS 1-24)	20.2	0-40.0	100.0
Industrial products (HS 25-99, excluding petroleum products)	8.4	0-30.0	50.0
By stage of processing and degree of substitutability for domestic goods:			
Non-competing inputs	0.2	0-5.0	50.0
Agricultural inputs	0	0	100.0
Non-competing capital inputs	0	0	50.0
Competing capital goods	15.0	15.0	50.0
Basic consumer "cost of living" goods	4.8	0-20.0	50.0
Competing intermediate inputs	20.0	20.0	50.0
Non-competing final goods, general manufactures, garments,	25.5	25.0-30.0	50.0
agro-industry, exceptions			
Agricultural products (excluding inputs)	40.0	40.0	100.0
Source: WTO Secretariat.			

VI.3 Other Taxes and Charges

In addition to tariffs, other charges applied to imports include: Additional Stamp Duties on Customs Warrants Inward (an import tax), a Special Consumption Tax, and the General Consumption Tax (GCT). The latter two apply equally to domestically produced goods. Additional Stamp Duties on Customs Warrants Inward are levied on the duty-paid value of imports; the aim, quite simply, is to protect local production. The application of additional stamp duties is regulated by the Stamp Duty Act; rates are defined as aggregate levels, including the customs duty applicable, and are generally

⁷⁹ The mode within this group is 25%: 21.6% of tariff lines are subject to this tariff rate, while only 6.3% are subject to a tariff rate of 20% and 2.7% are subject to a rate of 30%.

applied on agricultural products,⁸⁰ alcoholic beverages, tobacco products, and aluminium products. On primary aluminium products, applied rates of additional stamp duty (excluding the customs duty) are in the 20-25 percent range (bound at 80 percent in the WTO). Some agricultural products are charged additional stamp duty rates of 35 percent (vegetables, beans), which can result in protection rates as high as 90 percent once the combined effects of the tariff and the additional stamp duty are taken into account.⁸¹ Some agro-industry products face the highest additional stamp duties, although in aggregate terms, protection may be lower than for unprocessed agricultural goods.⁸² The range for agricultural products is between 65 and 90 percent. A non-specific additional stamp duty must be paid on imported refined sugar, whenever the c.i.f. price plus the customs duty fall below an established benchmark (currently US\$0.22 per lb), to cover this difference. The additional stamp duty on alcoholic beverages is 34 percent, while tobacco products are subject to a 56 percent duty.

The Special Consumption Tax was introduced in October 1991 to replace excise duties. This tax is levied on a number of products, including petroleum products, alcoholic beverages and tobacco products, whether domestically produced or imported. Applied duties are *ad valorem* for some products (beer, wine, cigarettes), specific for others (certain spirits), or a combination of *ad valorem* and specific duties (certain petroleum products). The value considered for the application of the Special Consumption Tax is, if the goods are imported, the value determined under the Customs Act plus the tariff plus any Additional Stamp Duty on Customs Warrants Inwards.

The GCT was introduced through the General Consumption Tax Act, 1991, to replace a number of other taxes.⁸³ The initial rate of 10 percent was raised to 12.5 percent in 1993, and to 15 percent in April 1995.⁸⁴ The GCT is applied on all taxable goods and services supplied in or imported into Jamaica. It is a value-added tax: that is, except for motor vehicles, tax payable is calculated after deducting the total amount of input tax. In the case of domestically produced goods or taxable services, the GCT is levied when the good or service is supplied; for imports, it is levied at the moment of

⁸⁰ Included in this category are: meat of bovine animals, swine and poultry; vegetables; fruit and nuts; condensed milk; edible oils; soya bean meal and flour; grains; certain fruit juices; tomato ketchup and sauce; eggs.

⁸¹ As an example, red kidney beans are subject to an aggregate customs duty and Additional Stamp Duty on Customs Warrants Inward of 90%, which results from a tariff of 40% and a stamp duty of 35.7%.

⁸² An example of this are roasted peanuts and tomato ketchup, both of which face a tariff of only 25%, but an aggregate additional stamp and customs duty of 86%. The stamp duty, calculated by dividing 1.86 by 1.25, is 48.8%.

⁸³ The General Consumption Tax Act (1991) replaced the Consumption Duty Act, the Entertainment Duty Act, the Retail Sales Act, the Telephone Service Tax Act, and the Hotels (Accommodation) Tax Act. It was revised in 1995, when the General Consumption Tax (Amendment) Act, 1995, was put in place.

⁸⁴ The exceptions are: Portland cement, pre-mixed concrete, cement blocks and steel reinforcing bars, which are taxed at 12.5%, plus a number of products that are zero-rated or exempt from GCT.

importation and collected at the point of entry. The base for the calculation of the GCT (value of taxable supply) in the case of domestically produced goods or services is the money value plus the Special Consumption Tax.⁸⁵ In the case of imported goods, the value of taxable supply is the aggregate of the value for customs duty purposes plus the customs duty payable, any additional stamp duty on inward customs warrants and any special consumption tax payable in respect of the taxable supply. A certain number of products are exempt from the GCT (some foodstuffs, milk, and some services), while others are zero-rated (health-related products, some animal products, some foodstuffs, books, and government procurement goods). Items imported under the Export Industry Encouragement Act, the Foreign Sales Corporation Act (machinery, equipment and materials), the Jamaica Export Free Zones Act, the Modernization of Industry Programme, and some other incentive schemes are also exempt from the GCT.

Motor vehicles are generally subject to higher GCT rates than other goods. With the exception of some types of buses, which may be imported duty-free and trucks for agricultural use (subject to rates of 8.08 or 9.09 percent), tax rates range from 170.94 to 176.92 percent. With the GCT applied on the customs value plus the tariff, the total tax charge may be as high as 230 percent in the case of importation by the user. When the sale takes place through a dealer, the maximum tax rate is lower, at 157.26 percent, but it is applied on a higher value, which includes the dealer's mark-up. GCT revenue collected on imports accounts for over half of the proceeds of international trade duties and for around one-sixth of total tax revenue.⁸⁶ It rose from J\$615.6 million (US\$28 million at the average exchange rate prevailing during the period) in FY1991/1992 to J\$8,559 million (US\$244 million) in FY1996/97.⁸⁷

VI.4 Fiscal Revenue

In fiscal year 2001/02 public debt increased as the economy began to slow down again. From the data in Table 17, it is clear that the government deficit grew to 5.7 percent of GDP as compared to the intended target of 4.1 percent. The primary cause for this decline was lower tax revenues from the income and profits tax and the GCT, as well as reduced import duties.

The government of Jamaica is reported to be interested in simplifying its domestic tax system. Currently, as shown in Table 17, there are a number of specific taxes on payroll such as the Education Tax, contributions to the National Insurance Scheme (NIS),

⁸⁵ If the "consideration" (defined by the General Consumption Tax Act as the payment made for the supply of a good or service) includes only partly money, then the value of the supply is deemed to be its open market value (defined as "the amount of consideration in money which the Commissioner of General Consumption Tax is satisfied would be payable in respect of a taxable supply by a person who is not a connected person in an arms length transaction". GCT Act, Part I, par. 2.)

⁸⁶ In 1996, GCT levied on imports was as important a source of government revenue as GCT levied on local products, and exceeded revenue from tariffs.

⁸⁷ The figure for FY1995/96 is J\$8,391.9 million (US\$240 million), the same as for FY1996/97.

the National Housing Trust (NHT) and the Human Employment and Resource Training (HEART). These taxes could be merged into a single personal income tax to reduce the administrative burden on taxpayers and to improve the efficiency of budget resource management.

Despite the reduction in tax revenue, the Government of Jamaica still maintains low tariff rates. The average tariff rate is currently around 9 percent. Amendments to tariff rates on a small number of agricultural products came into effect on June 3, 2002 taking the maximum tariff rates from 75 to 100 percent. These changes are not expected to raise tariffs significantly.

Despite these good intentions, many Jamaicans operate in the informal economy, leaving the burden of additional taxation to be borne by fewer and fewer people. Today nearly one-third of the economy functions outside the tax net. Yet the bulk of the tax reforms are aimed at pre-paid taxes for goods entering the country's ports, rather than individual taxpayers.

Table 17
Jamaica: Central Government Revenue

	1996/97	1997/98	1998/99	1999/00	2000/01
In Percent of Total Revenue					
Total Revenue and Grants	100	100	100	100	100
Tax Revenue	87.5	89.2	90.4	84.1	86.2
Income and Profits	34.3	35.1	34.9	32.5	35.1
of which					
Bauxite/alumina	0.1	0.3	0.6	0.0	0.4
Other companies	9.8	10.1	7.7	7.7	7.1
PAYE	18.9	19.8	20.3	15.7	16.3
Other individuals	1.0	1.1	1.1	1.3	0.8
Tax on dividend	0.8	0.5	1.0	0.9	0.9
Tax on interest	3.8	3.2	4.2	6.8	9.4
Property tax	0.6	0.0	0.0	0.0	0.0
Production and consumption	27.2	27.7	28.3	25.6	26.4
of which					
SCT	2.4	3.3	4.5	3.6	5.3
Motor Vehicle licenses	0.7	0.4	1.0	0.8	0.7
Other licenses	0.1	0.1	0.1	0.1	0.0
Betting, gaming and lottery	0.4	0.4	0.5	0.5	0.5
Education tax	4.2	4.7	4.5	3.9	3.8
Contractors levy	0.4	0.3	0.3	0.2	0.3
GCT (domestic)	15.3	15.3	14.2	13.5	12.9
Local stamp duty	3.8	3.2	3.2	3.0	2.9
International trade	25.4	26.4	27.2	26.0	24.7
of which					
Customs duty	9.5	10.1	9.6	8.2	8.4
Stamp duty	0.9	1.1	1.0	0.8	0.7
Travel tax	1.4	1.4	2.0	2.0	2.0
GCT (imports)	13.6	13.8	12.1	9.1	9.5
SCT (imports)	0.0	0.0	2.5	5.9	4.1
Bauxite levy	4.4	4.3	3.8	6.0	2.7
Nontax revenue	5.2	4.7	4.2	5.8	7.7
Capital revenue	1.2	0.8	0.8	3.1	1.7
Grants	1.7	1.1	0.9	1.0	1.7
In percent of GDP					
Total revenue and grants	26.4	25.8	27.1	30.5	30.8
Tax revenue	23.1	23	24.5	25.7	26.6
of which					
Income and profits	9.1	9	9.5	9.9	10.8
Property tax	0.2				
Production and consumption	7.2	7.1	7.7	7.8	8.1
International trade	6.7	6.8	7.4	7.9	7.6
Bauxite Levy	1.2	1.1	1	1.8	0.8
Nontax revenue	1.4	1.2	1.1	1.8	2.4
Capital revenue	0.3	0.2	0.2	0.9	0.5
Grants	0.4	0.3	0.2	0.3	0.5

Source, IMF, Jamaica, Article IV Report, Statistical Appendix, Table 13.

VII. CONCLUDING OBSERVATIONS AND SUGGESTED FUTURE RESEARCH

This study has attempted to revisit the very old and thorny issue of tariff liberalization and the resulting loss in fiscal revenue. From the two case studies presented it is clear that even in those economies that have committed to a course of tariff liberalization, trade taxes in general continue to be a major source of revenue for budget-constrained governments. The key concern for these governments was the balancing act of the liberalization of their respective tariffs structures and the search to recover, from other sources, the revenue loss that tariff reduction ultimately entailed.

As we noted above, the theoretical literature on trade and tax reform suggests that there exists some way of replacing tariffs with domestic consumption taxes in such a way as to raise welfare while maintaining revenue. However, this literature offers surprisingly little guidance on the practical issue of tax substitution and coordination between tariff liberalization and fiscal reform.

Based on a review of the literature and the cases of Morocco and Jamaica, this study sheds some light on the real challenges of coordinating tax and tariff reform in the developing country context.

In Morocco, for instance, despite the good intentions of the government, policies designed to liberalize trade without resorting to border tax “look-alikes” proved to be impossible to implement. Between the late 1980s and 2000, tariff revenues remained constant as a share of total revenue, while at the same time revenues from taxes on income, profits and capital gains generally increased. In 2002, trade taxes fell from 4.7 percent to 3.5 percent of GDP, a positive trend that is further supported by the new US-Morocco Free Trade Agreement.

Despite this trend, the average customs duty over the last decade stood at 15 percent, signaling the persistent use of exemptions, the impact of free trade agreements, the implementation of the Association Agreements with the EU, and an import composition skewed toward lower tariff bands.

The conflict between reduced border measures and the domestic revenue requirement can be seen in many of the post-Uruguay Round measures adopted by Morocco. This integration of the fiscal levy on imports (PFI) into customs tariffs in 2000 combined with Morocco’s full application of rates resulting from tariffication and the disaggregation of tariff lines from 8 to 10 digits in the Harmonized System, has meant a rise of 33.4 percent in the average duty applied (as compared with 23.5 percent in 1995). Currently, over one-third of the tariff lines are subject to rates higher than the bound rates. Moreover, the introduction of variable duties (applicable to around 40 tariff lines), which are in inverse proportion to the difference between the threshold price (fixed by the Government) and the import price, undermines Morocco’s compliance with its trade liberalization commitments, either as regards tariff commitments or in relation to the WTO Customs Valuation Agreement, which Morocco has (in principle) been applying

since October 1998.

While it is true that customs duties are being reduced, there are other methods by which one can increase the cost of imports at the border. In general, products imported into Morocco may be subject to import duties, parafiscal import taxes, value-added tax, domestic consumption taxes, and a number of other duties and taxes.

Overall, the Moroccan case is very instructive in the degree of complexity and difficulty of the reshuffling of border taxes as fiscal requirements intervened. The expected substitution of local taxes either in the form of base expansion or rate increases for border taxes has not occurred despite movements in that direction.

The Jamaican case study provides a slightly different perspective than that of Morocco. The primary reason for this difference is the degree to which the Jamaican economy relies heavily on tourism, and on exports of bauxite/alumina and clothing for its foreign exchange earnings. In effect, its degrees of freedom away from trade liberalization are severely limited.

Jamaica began a process of trade liberalization in 1986, when it abandoned its import-substitution strategy. Import duties thereafter were lowered from rates as high as 200 percent to the current maximum rate of 30 percent for industrial products and 40 percent for agricultural goods. Jamaica adopted the CARICOM Common External Tariff in 1991, and reduced tariff levels to a ceiling of 20 percent for industrial products in the late 1990s. As a consequence of the liberalization effort, Jamaica currently maintains few trade restrictions and has a relatively low average tariff of 10.9 percent on MFN imports.

Jamaica, unlike Morocco, does not use other measures, such as prior import deposits, minimum import or export prices, variable import levies, import surveillance, local-content requirements, or restrictions for balance-of-payments purposes. Although import licenses are still required for some products, licensing is not used as an instrument for the protection of local production. Recourse to the use of import surcharges (additional stamp duties), added to the customs duty, has replaced the use of quotas or other quantitative restrictions. During the Uruguay Round, Jamaica bound all its industrial tariff lines at 50 percent, and all agricultural lines were bound at a ceiling rate of 100 percent. In addition, foreign exchange controls are completely absent.

Despite the continued reductions in border taxes and the creation of higher domestic tax substitutes, the Jamaican authorities have now reached diminishing returns. As domestic taxes increase, more and more Jamaicans operate in the informal economy, leaving the burden of additional taxation to be borne by fewer and fewer people; it is estimated that one-third of the economy now functions outside the tax net. Therefore, the bulk of the tax reforms are aimed at pre-paid taxes for goods entering the country's ports, rather than at individual taxpayers.

Both case studies confirm the theoretical models' postulates that: (i) tariff liberalization has a negative impact on domestic revenue; (ii) most developing countries face a hard budget constraint; (iii) increases in domestic taxes yield diminishing returns; (iv) informal market activity increases as domestic taxes increase; and (v) when all else fails, governments revert to using hidden border taxes in place of customs charges. A program to support tariff liberalization must therefore include a detailed fiscal program which is based on a sound country study and its modeling in a CGE framework.

DATA APPENDIX

The statutory tariff rate data from the *Directory of Import Regimes* (1994), published by UNCTAD, is the benchmark tariff data used. This panel data set has a time dimension element that has not been fully employed by other researchers. The major caveat of this data set is that it does not always reflect actual rates. These tariff rates are sampled four times around 1982, 1985, 1988 and 1992 at the beginning of the fiscal year.

The government revenue requirement variable and other control variables are taken from the *Penn World Table*, *World Development Indicators* (World Bank), the *Government Finance Statistics* (IMF), and the *International Financial Statistics Yearbook* (IMF).

Data on the timing of tax reforms was taken from a reading of Article IV reports (IMF) and reported IMF programs.

The entire tax revenue components—taxes on income, profits and capital gains, individual, corporate, Social Security, taxes on work force, taxes on property, domestic taxes on goods and services, VAT, international taxes on trade, other taxes, non-tax revenue, enterprise and property income tax—are all taken from the *Government Financial Statistics* (IMF).

Countries included in the study are:

Algeria, Argentina, Bangladesh, Bolivia, Brazil, Burundi, Chile, Colombia, Cote d'Ivoire, Ecuador, Egypt, Ghana, Haiti, India, Indonesia, Iran, Kenya, Korea, Madagascar, Malawi, Malaysia, Mexico, Morocco, Nepal, Nigeria, Pakistan, Paraguay, Sierra Leone, Sri Lanka, Sudan, Syria, Tanzania, Thailand, Tunisia, Turkey, Venezuela, Zaire, and Zimbabwe.

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